



STIC Search Report

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STIC Database Tracking Number: 164165

TO: Michael T Brannock
Location: REM/4D74/4C70
Art Unit: 1649

Sept 2, 2005

Case Serial Number: 09/640582

From: P. Sheppard
Location: Remsen Building
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Search Notes

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164165

From: Brannock, Michael
Sent: Monday, August 29, 2005 10:58 AM
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Thank you

Michael T. Brannock, Ph.D.
Patent Examiner, AU 1649
USPTO Remsen Bld. 4D74
(571) 272-0869
Mail-Box: 4C70

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Searcher: _____
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Type of Search

NA#: _____ AA#: _____
Interference: _____ SPDI: _____
S/L: _____ Oligomer: _____
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Structure#: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable

STN: _____
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QUESTEL/ORBIT: _____
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Other(Specify): _____

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OM nucleic - nucleic search, using sw model

Run on: August 30, 2005, 19:53:43 ; Search time 218 Seconds
(without alignments)
10072.855 Million cell updates/sec

Title: US-09-640-582A-1

Perfect score: 1342
Sequence: 1 cgtgcgcctccaccagatc.....cactgcgcncctcacc 1342

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 1202784 seqs, 8181359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents NA: *
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5: /cgn2_6/ptodata/1/ina/PTCUTS_COMB.seq: *
6: /cgn2_6/ptodata/1/ina/backfile1.seq: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1298.6	96.8	3235	US-09-949-016-1392	Sequence 1392, Ap
2	1297	96.6	3372	US-09-949-016-165	Sequence 165, App
3	1207	89.9	1792	US-09-086-436-40	Sequence 40, Appl
4	1194.4	89.0	1790	US-08-997-685A-11	Sequence 11, Appl
5	927.2	69.1	4276	US-09-949-016-4900	Sequence 4900, App
6	927.2	69.1	5065	US-09-949-016-744	Sequence 744, App
7	874.2	65.1	1512	US-09-086-436-32	Sequence 32, Appl
8	871	64.9	1584	US-08-997-685A-3	Sequence 3, Appl
9	751.8	56.0	2976	US-09-774-528-317	Sequence 317, App
10	735.2	54.8	2733	US-08-997-685A-1	Sequence 1, Appl
11	706	52.6	1518	US-09-086-436-34	Sequence 34, Appl
12	688.8	51.3	1507	US-08-997-685A-5	Sequence 5, Appl
13	680.2	50.7	2246	US-09-086-436-38	Sequence 38, Appl
14	680.2	50.7	2263	US-08-997-685A-9	Sequence 9, Appl
15	680.2	50.7	3224	US-09-774-528-238	Sequence 238, App
16	666.6	49.7	1307	US-09-172-422-3	Sequence 3, Appl
17	331.8	24.7	1083	US-09-270-767-1038	Sequence 1038, App
18	331.8	24.7	1083	US-09-270-767-16320	Sequence 16320, A
19	285.6	21.3	31467	US-09-949-016-13134	Sequence 13134, A
20	285.6	21.3	31868	US-09-949-016-11907	Sequence 11907, A
21	221.6	16.5	601	US-09-949-016-21135	Sequence 21135, A
22	221.6	16.5	601	US-09-949-016-47503	Sequence 47503, A
23	221.2	16.5	601	US-09-949-016-21136	Sequence 21136, A
24	221.2	16.5	601	US-09-949-016-47504	Sequence 47504, A
25	211	15.7	601	US-09-949-016-21154	Sequence 21154, A
26	211	15.7	601	US-09-949-016-47522	Sequence 47522, A
27	210.4	15.7	50453	US-09-949-016-16642	Sequence 16642, A

28	210.4	15.7	51242	US-09-949-016-12486	Sequence 12486, A	
C	29	184.4	13.7	601	US-09-949-016-32298	Sequence 32298, A
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C	31	164.6	12.3	601	US-09-949-016-21134	Sequence 21134, A
C	32	164.6	12.3	601	US-09-949-016-47502	Sequence 47502, A
C	33	164.4	12.3	601	US-09-949-016-21121	Sequence 21121, A
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C	35	151	11.3	601	US-09-949-016-21142	Sequence 21142, A
C	36	151	11.3	601	US-09-949-016-47510	Sequence 47510, A
C	37	128	9.5	601	US-09-949-016-21141	Sequence 21141, A
C	38	128	9.5	601	US-09-949-016-47509	Sequence 47509, A
C	39	123.6	9.2	1040	US-09-086-436-36	Sequence 36, Appl
C	40	110	8.2	1060	US-08-997-685A-7	Sequence 7, Appl
C	41	102.6	7.6	3480	US-09-226-012-1	Sequence 1, Appl
C	42	102.6	7.6	3950	US-09-226-012-3	Sequence 3, Appl
C	43	94	7.0	601	US-09-949-016-21122	Sequence 21122, A
C	44	94	7.0	601	US-09-949-016-47490	Sequence 47490, A
C	45	86.6	6.5	3249	US-09-358-383C-3	Sequence 3, Appl

ALIGNMENTS

```
RESULT 1
US-09-949-016-1392
; Sequence 1392, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; FILE REFERENCE: C1001307
; CURRENT APPLICATION NUMBER: US/09/949, 016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241, 755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237, 768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231, 498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1392
; LENGTH: 3235
; TYPE: DNA
; ORGANISM: Human
; US-09-949-016-1392

Query Match          96.8%; Score 1298.6; DB 4; Length 3235;
Best Local Similarity 99.1%; Pred. No. 1.9e-257;
Matches 1329; Conservative 7; Mismatches 2; Indels 3; Gaps 3;

4 TGGGCTTACCAAGATCTTCAGCCTCTGCGGCTGTCGCCCTTCATGACGCTGATCCGCT 63
875 TGGGCTTACCAAGATCTTCAGCCTCTGCGGCTGTCGCCCTTCATGACGCTGATCCGCT 934
QY 4 ACATTCATCAGTGGAGAGATCTTCACATGACCTATGACCTGGCCAGGCGGTATGA 123
64 ACATTCATCAGTGGAGAGATCTTCACATGACCTATGACCTGGCCAGGCGGTATGA 123
DB 875 TGGGCTTACCAAGATCTTCAGCCTCTGCGGCTGTCGCCCTTCATGACGCTGATCCGCT 934
QY 935 ACATTCATCAGTGGAGAGATCTTCACATGACCTATGACCTGGCCAGGCGGTATGA 994
124 GAATTCGATCTTCATCAGATGATGCTGCTGTCGCCCTGGAGCGGCTGCTGAGT 183
DB 995 GAATTCGATCTTCATCAGATGATGCTGCTGTCGCCCTGGAGCGGCTGCTGAGT 1054
QY 184 TCTGTGTCATTCATGTCAGAGATCTCCGCGCACTGCTGGAGTGCATCATGATG 243
1055 TCTGTGTCATTCATGTCAGAGATCTCCGCGCACTGCTGGAGTGCATCATGATG 1114
QY 244 TGAACCACTGTGTGAGTGAATCTACTCTTCCGACCTTTCAAGGCCATAGCCATGC 303
DB 1115 TGAACCACTGTGTGAGTGAATCTACTCTTCCGACCTTTCAAGGCCATAGCCATGC 1174
QY 304 TGTGCACTGGGTACGGCGCGGCGGCGGAGAGCATGACGATCTGCTGACATGC 363
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Db 1175 TGTGATCGGGTACGGCCGGAGCGCCCGAGACATGACGAGATCTGGCTGACATGCT 1234
Qy 364 TCACATGATATGTTGGTGGCCACCTGTACAGGATGATGATGGCCAGCCATCCCTCA 423
Db 1235 TCACATGATATGTTGGTGGCCACCTGTACAGGATGATGATGGCCAGCCATCCCTCA 1294
Qy 424 TCCAGTCTGCTGATCTCTCGGGGGCCAGTACAGAGAAATGACAGAGTGAAGCACT 483
Db 1295 TCCAGTCTGCTGATCTCTCGGGGGCCAGTACAGAGAAATGACAGAGTGAAGCACT 1354
Qy 484 ACATGTCCTTCCACAGTGTGCGAGCTGACTTCCGCGAGAGATCCAGACTACTATGAGC 543
Db 1355 ACATGTCCTTCCACAGTGTGCGAGCTGACTTCCGCGAGAGATCCAGACTACTATGAGC 1414
Qy 544 ACCGTTACAGGGGCAAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 603
Db 1415 ACCGTTACAGGGGCAAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 1474
Qy 604 TGCAGGAGAGATGCTCAACTTCAACTGCGGAAAGCTGGTGGCTTCCATGCGCGTGTTCG 663
Db 1475 TGCAGGAGAGATGCTCAACTTCAACTGCGGAAAGCTGGTGGCTTCCATGCGCGTGTTCG 1534
Qy 664 CCAACGCGCAGACCCCACTTGTGCAAGGCGCATGCTGACCAAGTCAAGTTCGAGGCTTTC 723
Db 1535 CCAACGCGCAGACCCCACTTGTGCAAGGCGCATGCTGACCAAGTCAAGTTCGAGGCTTTC 1594
Qy 724 AGCGGGGTGACTACATCCGCGAGAGGACCATCGGAGAAAGATGACTTCAATCCAGC 783
Db 1595 AGCGGGGTGACTACATCCGCGAGAGGACCATCGGAGAAAGATGACTTCAATCCAGC 1654
Qy 784 AGCGGGGTGACTACATCCGCGAGAGGACCATCGGAGAAAGATGACTTCAATCCAGC 843
Db 1655 AGCGGGGTGACTACATCCGCGAGAGGACCATCGGAGAAAGATGACTTCAATCCAGC 1714
Qy 844 ACTTCGGGGAATGCTGCTGCTACCGGGGGCGCGGAGGGCGAGGCTGGGGGCTGCA 903
Db 1715 ACTTCGGGGAATGCTGCTGCTACCGGGGGCGCGGAGGGCGAGGCTGGGGGCTGCA 1774
Qy 904 CCTTCTGCGGCTCTAATTCGCGAGCGGAGCAATTCAGAGGTGTGAGAGATGAC 963
Db 1775 CCTTCTGCGGCTCTAATTCGCGAGCGGAGCAATTCAGAGGTGTGAGAGATGAC 1834
Qy 964 CCAATGATCGGCGGCGCTTCCAGAGCGGTGCGCATGACCGCTGAGACCGCATCGGCAAGA 1023
Db 1835 CCAATGATCGGCGGCGCTTCCAGAGCGGTGCGCATGACCGCTGAGACCGCATCGGCAAGA 1894
Qy 1024 AGAATTCATCTCTGCAAGATGTCAGCATGACTCACTCGGGGCTATTCAACAAAC 1083
Db 1895 AGAATTCATCTCTGCAAGATGTCAGCATGACTCACTCGGGGCTATTCAACAAAC 1954
Qy 1084 AGAAGAACGCCATTCAGAGAGATGTCAGATGACACCGCGAGATGTCAGAGACGCG 1143
Db 1955 AGAAGAACGCCATTCAGAGAGATGTCAGATGACACCGCGAGATGTCAGAGACGCG 2014
Qy 1144 AGTGGGCTCAGCGGCTCTTCCCGCGCGCGCGCGCGCGCGCA--GTCACTCG 1202
Db 2015 AGTGGGCTCAGCGGCTCTTCCCGCGCGCGCGCGCGCGCGCGCAAGTCACTCG 2073
Qy 1203 GCGATGCGCAGCGCTGACAGAGCGGCGCGCATGAGACTTCTGCGCGCA--GTGGCGGCGCG 1261
Db 2074 GCGATGCGCAGCGCTGACAGAGCGGCGCGCATGAGACTTCTGCGCGCAAGTGGCGGCGCG 2133
Qy 1262 CTCGTGGGGCGCTGGCGCTGCGCGCGCTGTCGCGCHGCGYNDYHCCCGGGGCGC 1321
Db 2134 CTCGTGGGGCGCTGGCGCTGCGCGCGCTGTCGCGCHGCGCGCCCGCGCGCGCGCGCGC 2193
Qy 1322 GCACTGCGGCGCTCAACC 1342
Db 2194 GCACTGCGGCGCGCTCAACC 2214

4 RESULT 2

US-09-949-016-165
; Sequence 165, Application US/09949016
; Patent No 681239
; GENERAL INFORMATION:
; APPLICANT: VENTURE, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: C1001307
; CURRENT APPLICATION NUMBER: US/09/949, 016
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 165
; LENGTH: 3372
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-165

Query Match 96.6%; Score 1297; DB 4; Length 3372;
Best Local Similarity 99.0%; Pred. No. 4; 1e-257;
Matches 1328; Conservative 7; Mismatches 3; Indels 3; Gaps 3;
Qy 4 TGCCTTCAACCAAGATCTGAGCTCTCGGCTGCTGCGCTCTGACGCTGATCGCT 63
Db 1012 TGCCTTCAACCAAGATCTGAGCTCTCGGCTGCTGCGCTCTGACGCTGATCGCT 1071
Qy 64 ACATCCATCAGTGGAGAGATCTTCCACATGACCTATGACTGGCCAGCGCGATGATGA 123
Db 1072 ACATCCATCAGTGGAGAGATCTTCCACATGACCTATGACTGGCCAGCGCGATGATGA 1131
Qy 124 GGATCTGCATCTCATAGATGATGATGCTGCTGCTGCGCACTGAGAGCGCTGCTGAGT 183
Db 1132 GGATCTGCATCTCATAGATGATGATGCTGCTGCTGCGCACTGAGAGCGCTGCTGAGT 1191
Qy 184 TCCCTGGGCCCATGCTGAGAGACTTCCGCGCAACTGCTGGGTGCATCAATGGGATGG 243
Db 1192 TCCCTGGGCCCATGCTGAGAGACTTCCGCGCAACTGCTGGGTGCATCAATGGGATGG 1251
Qy 244 TGAACCACTGTGAGAGAACTGATCTCTTCCGCACTTCAAGGCGCATGAGCAATGCG 303
Db 1252 TGAACCACTGTGAGAGAACTGATCTCTTCCGCACTTCAAGGCGCATGAGCAATGCG 1311
Qy 304 TGTGATCGGGGTACGGCCGAGCGCCGAGAGCATGAGACATTTGGCTGACCATGCG 363
Db 1312 TGTGATCGGGGTACGGCCGAGCGCCGAGAGCATGAGACATTTGGCTGACCATGCG 1371
Qy 364 TCAAGATGATTTGGGTGCCACTGTCTTACGCGCATGTTCAATGCGCACTGCGCTCA 423
Db 1372 TCAAGATGATTTGGGTGCCACTGTCTTACGCGCATGTTCAATGCGCACTGCGCTCA 1431
Qy 424 TCCAGTGTGAGACTCTTCCGCGCGCGCATGACAGAGAAATGACAGAGTGGAGAGT 483
Db 1432 TCCAGTGTGAGACTCTTCCGCGCGCGCATGACAGAGAAATGACAGAGTGGAGAGT 1491
Qy 484 ACATGTCCTTCCACAGCTGCGAGCTGACTTCCGCGAGAAATGACAGACTATATAGC 543
Db 1492 ACATGTCCTTCCACAGCTGCGAGCTGACTTCCGCGAGAAATGACAGACTATATAGC 1551
Qy 544 ACCGTTACAGGGGCAAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 603
Db 1552 ACCGTTACAGGGGCAAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 1611
Qy 604 TGCAGGAGAGATGTCATCTTCACTGCGGAAAGCTGATGAGCTCATGCTGCTTTCG 663
Db 1612 TGCAGGAGAGATGTCATCTTCACTGCGGAAAGCTGATGAGCTCATGCTGCTTTCG 1671
Qy 664 CCAACGCGCAGACCCCACTTGTGTCAGGCGCATGTCAGCAAGTCAAGTTCGAGGCTTTC 723

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Db      1672 CCAAGCGGACCCCACTTCGTCAGGCGCATGCTCAAGCTCAAGTTCCAGGTCCTCC 1731
Qy      724  AGCGGGGTGACTACATTCATCCGCGAAGCAACATGGGAAAGAAATGATCACTTCAACAGC 783
Db      1732  AGCGGGGTGACTACATTCATCCGCGAAGCAACATGGGAAAGAAATGATCACTTCAACAGC 1791
Qy      784  ACGGCGGTGTCAGCGTGTCTCACTAAAGGCAACAAGAGATGAAGCTGTCCGATGGCTCT 843
Db      1792  ACGGCGGTGTCAGCGTGTCTCACTAAAGGCAACAAGAGATGAAGCTGTCCGATGGCTCT 1851
Qy      844  ACTTCGGGAGATTCCTGCTCAACCGGAGCGCGCAAGCGGAGCGTGGCGGCTGACA 903
Db      1852  ACTTCGGGAGATTCCTGCTCAACCGGAGCGCGCAAGCGGAGCGTGGCGGCTGACA 1911
Qy      904  CCTACTGCGGCTCTATTCGCTGAGCGGTGAACAATTGAAGAGTGTGTAAGAGATACC 963
Db      1912  CCTACTGCGGCTCTATTCGCTGAGCGGTGAACAATTGAAGAGTGTGTAAGAGATACC 1971
Qy      964  CCATGATCGGCGCGCTTCGAGACGCTGACATCGACCGGCTGGACCGCATCGGCAAGA 1023
Db      1972  CCATGATCGGCGCGCTTCGAGACGCTGACATCGACCGGCTGGACCGCATCGGCAAGA 2031
Qy      1024  AGAATTCATCTCTCTGCACAAGGTGACATGACCTCACTCGGCGTATTCACAACAC 1083
Db      2032  AGAATTCATCTCTCTGCACAAGGTGACATGACCTCACTCGGCGTATTCACAACAC 2091
Qy      1084  AGGAGAAAGCCATCATCCAGAGATTCAGATCAAGACCGGAGATGATGTAAGACAGCGCG 1143
Db      2092  AGGAGAAAGCCATCATCCAGAGATTCAGATCAAGACCGGAGATGATGTAAGACAGCGCG 2151
Qy      1144  AGCTGGGCTCAAGCGGTGGGCTCTTCCGCGCGCGCGCGCGCGCGCGCA-GTCACTCG 1202
Db      2152  AGCTGGG-TCAGCGGTGGGCTCTTCCGCGCGCGCGCGCGCGCGCGCAAGTCACTCG 2210
Qy      1203  GCATCGCCACGCTGACAGACGCGCGCGCATGACCTTCTGCCGCA-GTGGCGCGCGCG 1261
Db      2211  GCATCGCCACGCTGACAGACGCGCGCGCATGACCTTCTGCCGCAAGTGGCGCGCGCG 2270
Qy      1262  CTCGGGGGCGCGCTGCGGCTGCGGCGCGCGCGCTGCGGCHGTYNDYHCCCGGGGSC 1321
Db      2271  CTCGGGGGCGCGCTGCGGCTGCGGCGCGCGCTGCGGCHGTYNDYHCCCGGGGSC 2330
Qy      1322  GCACCTGCGGCGGCTCAACC 1342
Db      2331  GCACCTGCGGCGGCTCAACC 2351

RESULT 3
US-09-086-436-40
; Sequence 40, Application US/09086436
; Patent No. 6703485
; GENERAL INFORMATION:
; APPLICANT: Kandel, Eric R.
; APPLICANT: Santero, Dana
; APPLICANT: Bartsch, Susan
; APPLICANT: Siegelbaum, Steven
; APPLICANT: Tibbs, Gareth
; APPLICANT: Grant, Seth
; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 0575/54806-A
; CURRENT APPLICATION NUMBER: US/09/086,436
; CURRENT FILING DATE: 1998-05-28
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 40
; LENGTH: 1792
; TYPE: DNA
; ORGANISM: Human
US-09-086-436-40

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Query Match 89.9%; Score 1207; DB 4; Length 1792;

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Best Local Similarity 99.0%; Pred. No. 1,le-238;
Matches 1235; Conservative 0; Mismatches 11; Indels 2; Gaps 2;
Qy      4  TGGCCTTCAACCAATATCTCAAGCTCTCTGGGCTGCTGCGGCTCTCAAGCTGATCCGCT 63
Db      541  TGGCCTTCAACCAATATCTCAAGCTCTCTGGGCTGCTGCGGCTCTCAAGCTGATCCGCT 600
Qy      64  ACATCACTAGTGGAGAGATCTTCCACATGACCTTATGACCTTGGCAGCGCGGTGATGA 123
Db      601  ACATCACTAGTGGAGAGATCTTCCACATGACCTTATGACCTTGGCAGCGCGGTGATGA 660
Qy      124  GGATCTGCAATCTCATAGCATGATGATGCTGCTCTGCACTGAGGACGCTGCTGCAAGT 183
Db      661  GGATCTGCAATCTCATAGCATGATGATGCTGCTCTGCACTGAGGACGCTGCTGCAAGT 720
Qy      184  TCCCTGGGCCCATGCTGACAGACTTCCCGGCAACTGCTGGGTGTCCATTAATGGCATGG 243
Db      721  TCCCTGGGCCCATGCTGACAGACTTCCCGGCAACTGCTGGGTGTCCATTAATGGCATGG 780
Qy      244  TGAACCACTGCTGAGTGAATGTAATCTCTTGGCACTTCAAGGCGCATGAGCCACATGC 303
Db      781  TGAACCACTGCTGAGTGAATGTAATCTCTTGGCACTTCAAGGCGCATGAGCCACATGC 840
Qy      304  TGTGCACTGGGATCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 363
Db      841  TGTGCACTGGGATCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 900
Qy      364  TCAGCATGATTTGGGGTGGCCACTGCTACGCGCATGTTCAACGCGCAAGCCATGCGCTCA 423
Db      901  TCAGCATGATTTGGGGTGGCCACTGCTACGCGCATGTTCAACGCGCAAGCCATGCGCTCA 960
Qy      424  TCCAGTGGCTGAGACTCTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 483
Db      961  TCCAGTGGCTGAGACTCTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1020
Qy      484  ACATGCTCTTCCACAGCTGCGGCTGACTTCCGCGGAGGATTCACGACTATGAGC 543
Db      1021  ACATGCTCTTCCACAGCTGCGGCTGACTTCCGCGGAGGATTCACGACTATGAGC 1080
Qy      544  ACCGTTACAGAGGAGATGTTTGAAGAGACAGCATCTTGGGAGAGCTCAACGGGCGCC 603
Db      1081  ACCGTTACAGAGGAGATGTTTGAAGAGACAGCATCTTGGGAGAGCTCAACGGGCGCC 1140
Qy      604  TGGGAGAGAGATGTCACCTTCAACTGCGGAGAGCTGGGCTCATGCGGCTGTTGG 663
Db      1141  TGGGAGAGAGATGTCACCTTCAACTGCGGAGAGCTGGGCTCATGCGGCTGTTGG 1200
Qy      664  CCAAGCGGACCCCACTTGTGTCAGGCACTGTCACCAAGCTCAAGTTCAGGTCCTTCC 723
Db      1201  CCAAGCGGACCCCACTTGTGTCAGGCACTGTCACCAAGCTCAAGTTCAGGTCCTTCC 1260
Qy      724  AGCGGGGTGACTACATTCATCCGCGAAGGACCATCGGGAAGAGATGTACTTCAACAGC 783
Db      1261  AGCGGGGTGACTACATTCATCCGCGAAGGACCATCGGGAAGAGATGTACTTCAACAGC 1320
Qy      784  ACGGCGGTGTCAGCGTGTCTCACTAAAGGCAACAAGAGATGAAGCTGTCCGATGGCTCT 843
Db      1321  ACGGCGGTGTCAGCGTGTCTCACTAAAGGCAACAAGAGATGAAGCTGTCCGATGGCTCT 1380
Qy      844  ACTTCGGGAGATTCCTGCTCAACCGGAGCGCGCAAGCGGAGCGTGGCGGCTGACA 903
Db      1381  ACTTCGGGAGATTCCTGCTCAACCGGAGCGCGCAAGCGGAGCGTGGCGGCTGACA 1440
Qy      904  CCTACTGCGGCTCTATTCGCTGAGCGGTGAACAATTGAAGAGTGTGTAAGAGATACC 963
Db      1441  CCTACTGCGGCTCTATTCGCTGAGCGGTGAACAATTGAAGAGTGTGTAAGAGATACC 1500
Qy      964  CCATGATCGGCGCGCTTCGAGACGCTGACATCGACCGCTGAGACCGCATCGGCAAGA 1023
Db      1501  CCATGATCGGCGCGCTTCGAGACGCTGACATCGACCGCTGAGACCGCATCGGCAAGA 1560
Qy      1024  AGAATTCATCTCTCTGCACAAGGTGACATGACCTCACTCGGCGTATTCACAACAC 1083

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US-09-949-016-4900

Query Match 69.1%; Score 927.2; DB 4; Length 4276;
Best Local Similarity 84.7%; Pred. No. 3.6e-181;
Matches 1040; Conservative 0; Mismatches 188; Indels 0; Gaps 0;

QY 4 TGGCTTACCAAGATCTCAGCTCTGCGGCTGCTGCGCTTCAACGCTGATCCGCT 63
DB TCCCTTACCAAGATCTCAGCTCTGCGGCTGCTGCGCTTCAACGCTGATCCGCT 908
QY 64 ACATCCAGTGGAGAGATCTTCCATGACCTTACGCTGAGCTGAGCTGAGTGA 123
DB ATATTACAGTGGAGAGATCTTCCATGACCTTACGCTGAGCTGAGCTGAGTGA 968
QY 124 GGATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 183
DB GCATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1028
QY 184 TCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
DB TCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1028
QY 244 TGAACCACTGCTGAGAGATCTGATCTCTTCTGCTGCTGCTGCTGCTGCTGCTGCT 303
DB TGAACCACTGCTGAGAGATCTGATCTCTTCTGCTGCTGCTGCTGCTGCTGCTGCT 1148
QY 304 TGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 363
DB TGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1208
QY 364 TCAGCATGATGTTGGTGGCCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
DB TCAGCATGATGTTGGTGGCCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1208
QY 424 TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 483
DB TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1268
QY 484 ACATGCTCTTCCAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
DB ACATGCTCTTCCAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1328
QY 544 ACCGCTTACCAAGATCTTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 603
DB ACCGCTTACCAAGATCTTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1389
QY 604 TGGCGGAGAGATGCTCACTTCACTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG 663
DB TGGCGGAGAGATGCTCACTTCACTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG 1449
QY 664 CCAAGCGGAG 723
DB CCAAGCGGAG 1509
QY 724 AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 783
DB AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1569
QY 784 AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 843
DB AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1629
QY 844 ACTTGGGAGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
DB ACTTGGGAGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1689
QY 904 CCTTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 963
DB CCTTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1749
QY 964 CCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1023
DB CCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1809

QY 1024 AGAATTCATCTCTCTGCAAGAGTGCAGATGATCTCACTGCGGCTGATTAACAACC 1083
DB AGAATTCATCTCTCTGCAAGAGTGCAGATGATCTCACTGCGGCTGATTAACAACC 1928
QY 1084 AGGAAACGCCATTCATTCAGAGAGATGCTCAAGTACGAGCGGAGAGTGCAGAGCGG 1143
DB AGGAAACGCCATTCATTCAGAGAGATGCTCAAGTACGAGCGGAGAGTGCAGAGCGG 1929
QY 1144 AGCTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1203
DB AGCTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1989
QY 1204 CCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1231
DB CCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2048

RESULT 6

US-09-949-016-744
Sequence 744, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTUR, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 744
LENGTH: 5065
TYPE: DNA
ORGANISM: Human
US-09-949-016-744

Query Match 69.1%; Score 927.2; DB 4; Length 5065;
Best Local Similarity 84.7%; Pred. No. 3.8e-181;
Matches 1040; Conservative 0; Mismatches 188; Indels 0; Gaps 0;

QY 4 TGGCTTACCAAGATCTCAGCTCTGCGGCTGCTGCGCTTCAACGCTGATCCGCT 63
DB TCCCTTACCAAGATCTCAGCTCTGCGGCTGCTGCGCTTCAACGCTGATCCGCT 1755
QY 64 ACATCCAGTGGAGAGATCTTCCATGACCTTACGCTGAGCTGAGCTGAGTGA 123
DB ACATCCAGTGGAGAGATCTTCCATGACCTTACGCTGAGCTGAGCTGAGTGA 1815
QY 124 GGATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 183
DB GGATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1875
QY 184 TCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
DB TCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1935
QY 244 TGAACCACTGCTGAGAGATCTGATCTCTTCACTGCTGCTGCTGCTGCTGCTGCT 303
DB TGAACCACTGCTGAGAGATCTGATCTCTTCACTGCTGCTGCTGCTGCTGCTGCT 1995
QY 304 TGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 363
DB TGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2055
QY 364 TCAGCATGATGTTGGTGGCCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
DB TCAGCATGATGTTGGTGGCCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT

Db 2056 TCAGCATGATGTTGGGTGTCACCTGCTAGCCCATGTTTCATTGGCCACGCCACTGCTCTCA 2115
 Qy 424 TCAGTGTGCTGTAATCTCTGCGGGCGCCAGTACCGAGAGATGACAGGATGAGACAGT 483
 Db 2116 TCAGTGTGCTGTAATCTCTGCGGGCGCCAGTACCGAGAGATGAGACAGGATGAGACAGT 2175
 Qy 484 ACATGTCTCTTCCACAAAGCTGCAAGCTGACCTCCCGCAGAGATGACAGGATGAGACAGT 543
 Db 2176 ACATGTCTCTTCCACAAAGCTGCAAGCTGACCTCCCGCAGAGATGACAGGATGAGACAGT 2235
 Qy 544 ACCGTTACGAGGAGCAAGATGTTTGAAGAGACAGCATCTGCGCGAGCTCAACGCGGCC 603
 Db 2236 ACCGTTACGAGGAGCAAGATGTTTGAAGAGACAGCATCTGCGCGAGCTCAACGCGGCC 2295
 Qy 604 TCGCGGAGAGATGCTCAACTTCACTGCGCGAGAGCTGCGCTCACTGCGCTGTTG 663
 Db 2296 TCGCGGAGAGATGCTCAACTTCACTGCGCGAGAGCTGCGCTCACTGCGCTGTTG 2355
 Qy 664 CCAACGCCGACCCCAACTTCTGTCAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 723
 Db 2356 CCAATGCCGACCCCAACTTCTGTCAGGCGCATGCTGACCAAGCTGCGTTTCAGAGGCTTCC 2415
 Qy 724 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCACTTCCAGC 783
 Db 2416 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCACTTCCAGC 2475
 Qy 784 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 843
 Db 2476 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 2535
 Qy 844 ACTTCGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
 Db 2536 ACTTCGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2595
 Qy 904 CCAATGCGCGCTCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 963
 Db 2596 CCAATGCGCGCTCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 2655
 Qy 964 CCAATGCGCGCTCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 1023
 Db 2656 CCAATGCGCGCTCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 2715
 Qy 1024 AGAATTCATCTCTCTGCAAGAGTGCAGATGATCTTCACTGCGGCGTATTCAACAAC 1083
 Db 2716 AGAATTCATCTCTCTGCAAGAGTGCAGATGATCTTCACTGCGGCGTATTCAACAAC 2775
 Qy 1084 AGAAGACGCGCATCTCAAGAGATGCTCAAGTGCAGATGATCTTCAAGTGCAGAGGCG 1143
 Db 2776 AGAAGACGCGCATCTCAAGAGATGCTCAAGTGCAGATGATCTTCAAGTGCAGAGGCG 2835
 Qy 1144 AGCTGGGTCAAGCGGCTGCTCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGCG 1203
 Db 2836 AGCTGGGTCAAGCGGCTGCTCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGCG 2895
 Qy 1204 CCATGCGCACGCTGCGAGAGCGCGCGCG 1231
 Db 2896 TGATCCAGGACACCATGAGGCTGCGCG 2923

RESULT 7
 ; Sequence 32, Application US/09086436
 ; Patent No. 6703485
 ; GENERAL INFORMATION:
 ; APPLICANT: Kandel, Eric R.
 ; APPLICANT: Santoro, Bina
 ; APPLICANT: Bartsch, Dusan
 ; APPLICANT: Siegelbaum, Steven
 ; APPLICANT: Tibbs, Gareth
 ; APPLICANT: Grant, Seth
 ; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
 ; TITLE OF INVENTION: Uses Thereof
 ; FILE REFERENCE: 0575/54806-A

; CURRENT APPLICATION NUMBER: US/09/086,436
 ; CURRENT FILING DATE: 1998-05-28
 ; NUMBER OF SEQ ID NOS: 67
 ; SOFTWARE: Patentl Ver. 2.1
 ; SEQ ID NO 32
 ; LENGTH: 1512
 ; TYPE: DNA
 ; ORGANISM: Murine
 ; US-09-086-436-32
 Query Match 65.1%; Score 874.2; DB 4; Length 1512;
 Best Local Similarity 88.9%; Pred. No. 2.2e-170;
 Matches 945; Conservative 0; Mismatches 118; Indels 0; Gaps 0;
 Qy 4 TCGGCTTCAACCAAGATCTCTGAGCTCTGCGGCTGCTGCGCTCTGCAAGCTGATCGCT 63
 Db 449 TCGGCTTCAACCAAGATCTCTGAGCTCTGCGGCTGCTGCGCTCTGCAAGCTGATCGAT 508
 Qy 64 ACATTCATCAGTGGAGAGATCTTCCACATGACCTATGACCTGCGCAGCGCGATGATGA 123
 Db 509 ATATCCACAGTGGAGAGATTTTCCACATGACCTATGACCTGCGCAGCGCGATGATG 568
 Qy 124 GATTCGATCTCATCAGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 183
 Db 569 GATTCGATCTCATCAGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 628
 Qy 184 TCGTGGGCCCATGCTGCAAGACTTCCCGCGCAACTGCTGGGTGCTCATGATGCAATGG 243
 Db 629 TCGTGGGCCCATGCTGCAAGACTTCCCGCGCAACTGCTGGGTGCTCATGATGCAATGG 688
 Qy 244 TGAACCACTGCTGAGAGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 303
 Db 689 TGAACCACTGCTGAGAGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 748
 Qy 304 TGTGCACTGCTGAGAGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 363
 Db 749 TGTGCACTGCTGAGAGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 808
 Qy 364 TCGCATGATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
 Db 809 TCGCATGATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 868
 Qy 424 TCGCATGATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 483
 Db 869 TCGCATGATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 928
 Qy 484 ACATGTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
 Db 929 ACATGTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 988
 Qy 544 ACCGTTACGAGGAGCAAGATGCTGATGAGACAGCATCTTGGGAGACTCAAGCGGCGC 603
 Db 989 ACCGTTACGAGGAGCAAGATGCTGATGAGACAGCATCTTGGGAGACTCAAGCGGCGC 1048
 Qy 604 TCGCGGAGAGATGCTCAACTTCAACTGCGGAGAGTGTGCTGCTGCTGCTGCTGCTGCT 663
 Db 1049 TCGCGGAGAGATGCTCAACTTCAACTGCGGAGAGTGTGCTGCTGCTGCTGCTGCTGCT 1108
 Qy 664 CCAACGCCGACCCCAACTTCTGTCAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 723
 Db 1109 CCAATGCCGACCCCAACTTCTGTCAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 1168
 Qy 724 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCACTTCCAGC 783
 Db 1169 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCACTTCCAGC 1228
 Qy 784 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 843
 Db 1229 AGCGGGGTGATCACTATCCGCGAGAGGACCATGCGGAGAGATGATCTTCCAGTGGCTCT 1288
 Qy 844 ACTTCGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
 Db 1289 ACTTCGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1348

QY 904 CCTACTGCGGCTTATTCGTGAGCGTGAACAATTCAACGAGGTGCTGAGAGTACC 963
 DB 1349 CCTACTGCGGCTTATTCGTGAGCGTGAACAATTCAACGAGGTGCTGAGAGTACC 1408
 QY 964 CCATGATGCGGCGGCTTCAAGACGCTGAGCGCTTGAACGCTGAGAGTACC 1023
 DB 1409 CCATGATGCGGCGGCTTCAAGACGCTGAGCGCTTGAACGCTGAGAGTACC 1468
 QY 1024 AGAATTCATCTCTGCAAGGTGAGCGATGACCTCACTC 1066
 DB 1469 AGAATTCATCTCTGCAAGGTGAGCGATGACCTCACTC 1511

RESULT 8
 US-08-997-685A-3

; Sequence 3, Application US/08997685A
 ; Patent No. 651821
 ; GENERAL INFORMATION:
 ; APPLICANT: The Trustees of Columbia University
 ; APPLICANT: Kandel, Eric
 ; TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
 ; FILE REFERENCE: 0575/54806
 ; CURRENT APPLICATION NUMBER: US/08/997,685A
 ; NUMBER OF SEQ ID NOS: 60
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 3
 ; LENGTH: 1584
 ; TYPE: DNA
 ; ORGANISM: mouse;
 US-08-997-685A-3

Query Match 64.9%; Score 871; DB 4; Length 1584;
 Best Local Similarity 88.7%; Pred. No. 1e-169;
 Matches 943; Conservative 0; Mismatches 120; Indels 0; Gaps 0;

QY 4 TGCGCTTACCAAAATCTCTGAGCTCTGCGGCTGCGGCTCTCAACGCTGATCCGCT 63
 DB 449 TGCGCTTACCAAAATCTCTGAGCTCTGCGGCTGCGGCTCTCAACGCTGATCCGAT 508
 QY 64 ACATCATCATGAGGAGATCTTCAATGACCTTGAACGCGGCTGATGA 123
 DB 509 ATATCCACAGTGGAGAGATTTTCCACATGACCTTGAACGCGGCTGATGATGC 568
 QY 124 GATTCGATCTCATGATGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 183
 DB 569 GATTCGATCTCATGATGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 628
 QY 184 TCCGTGCGGCTGAGGAGCTTCCGCGGCACTGCTGCGGCTGCTGCTGCTGCTGCT 243
 DB 629 TCCGTGCGGCTGAGGAGCTTCCGCGGCACTGCTGCGGCTGCTGCTGCTGCTGCT 688
 QY 244 TGAACCACTGCTGAGGAGCTTCTGATCTCTTCCGCTTCCGCTTCCGCTTCCGCT 303
 DB 689 TGAACCACTGCTGAGGAGCTTCTGATCTCTTCCGCTTCCGCTTCCGCTTCCGCT 748
 QY 304 TGTGATCGGCTGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 363
 DB 749 TGTGATCGGCTGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 808
 QY 364 TCAGCATGATGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 423
 DB 809 TCAGCATGATGAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 868
 QY 424 TCCAGTGGCTGAGTCTCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 483
 DB 869 TCCAGTGGCTGAGTCTCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCT 928
 QY 484 ACATGCTCTTCCAAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
 DB 929 ACATGCTCTTCCAAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 988

QY 544 ACCGTTACCAAGGCAAGATGTTTACGAGGACGACATCTTGGGCGAGCTCAACGCGCCC 603
 DB 989 ACCGTTACCAAGGCAAGATGTTTACGAGGACGACATCTTGGGCGAGCTCAACGCGCCC 1048
 QY 604 TGGGAGGAGATGCTGATCTTCACTGCGGAGAGCTGCTGCTGCTGCTGCTGCTGCT 663
 DB 1049 TGGGAGGAGATGCTGATCTTCACTGCGGAGAGCTGCTGCTGCTGCTGCTGCTGCT 1108
 QY 664 CCAAGCGGAGCCCACTTGTGTCAGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 723
 DB 1109 CCAAGCGGAGCCCACTTGTGTCAGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1168
 QY 724 AGCGGCTGATCATCATCATCCGAGGACCATCGGAGGAGGAGATGATCTTCAATCCAGC 783
 DB 1169 AGCGGCTGATCATCATCATCCGAGGACCATCGGAGGAGGAGATGATCTTCAATCCAGC 1228
 QY 784 AGCGGCTGATCATCATCATCCGAGGACCATCGGAGGAGGAGATGATCTTCAATCCAGC 843
 DB 1229 AGCGGCTGATCATCATCATCCGAGGACCATCGGAGGAGGAGATGATCTTCAATCCAGC 1288
 QY 844 ACTTGGGAGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
 DB 1289 ACTTGGGAGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1348
 QY 904 CCTACTGCGGCTTATTCGTGAGCGTGAACAATTCAACGAGGTGCTGAGAGTACC 963
 DB 1349 CCTACTGCGGCTTATTCGTGAGCGTGAACAATTCAACGAGGTGCTGAGAGTACC 1408
 QY 964 CCATGATGCGGCGGCTTCAAGACGCTGAGCGCTTGAACGCTGAGAGTACC 1023
 DB 1409 CCATGATGCGGCGGCTTCAAGACGCTGAGCGCTTGAACGCTGAGAGTACC 1468
 QY 1024 AGAATTCATCTCTGCAAGGTGAGCGATGACCTCACTC 1066
 DB 1469 AGAATTCATCTCTGCAAGGTGAGCGATGACCTCACTC 1511

RESULT 9
 US-09-774-528-317

; Sequence 317, Application US/09774528
 ; Patent No. 6743619
 ; GENERAL INFORMATION:
 ; APPLICANT: Tang, Y. Tom
 ; APPLICANT: Zhou, Ping
 ; APPLICANT: Goodrich, Ryle
 ; APPLICANT: Liu, Chenghua
 ; APPLICANT: Asundi, Vinod
 ; APPLICANT: Ren, Feiyan
 ; APPLICANT: Zhang, Jie
 ; APPLICANT: Zhao, Qing A.
 ; APPLICANT: Yang, Yonghong
 ; APPLICANT: Xue, Aifeng J.
 ; APPLICANT: Wehrman, Tom
 ; APPLICANT: Wang, Jian-Rui
 ; APPLICANT: Wang, Dunrul
 ; APPLICANT: Drmanac, Radoje T.
 ; TITLE OF INVENTION: No. 6743619el Nucleic Acids and
 ; FILE REFERENCE: Polypeptides
 ; CURRENT APPLICATION NUMBER: US/09/774,528
 ; NUMBER OF SEQ ID NOS: 441
 ; SOFTWARE: PL_Fl_genes Version 2.0
 ; SEQ ID NO 317
 ; LENGTH: 2976
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; FEATURE:
 ; NAME/KEY: CDS
 ; LOCATION: (18)..(2174)
 US-09-774-528-317

Query Match 56.0%; Score 751.8; DB 4; Length 2976;

Best Local Similarity 82.6%; Pred. No. 3,5e-145; Matches 861; Conservative 0; Mismatches 182; Indels 0; Gaps 0;

QY 4 TGGCGTTACCAAGATCTCTAGCCTCTGCGGCTGCTGCGGCTCTGACGCTGATCCGCT 63
 Db 478 TTGCGTTACCAAGATCTCTAGCCTCTGCGGCTGCTGCGGCTCTGACGCTGATCCGCT 537
 QY 64 ACATCCATCACTGGAGAGATCTTCAACATGACCTATGACCTGAGCCGCGGTATGA 123
 Db 538 ACATACACAGATGGAGAGATCTTCAACATGACCTATGACCTGAGCCGCTGATGTC 597
 QY 124 GAATCTGCAATCTCATCACTGATGATGCTGCTCTGCACTGAGACGCTGCTGAGT 183
 Db 598 GCATCTTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 657
 QY 184 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
 Db 658 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 717
 QY 244 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 303
 Db 718 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 777
 QY 304 TGTGATGAGGATAGCG 363
 Db 778 TGTGATGAGGATAGCG 837
 QY 364 TCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 423
 Db 838 TCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 897
 QY 424 TCCAGTCCCTGCACTCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 483
 Db 898 TCCAGTCCCTGCACTCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 957
 QY 484 ACATGCTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
 Db 958 ACATGCTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1017
 QY 544 ACCGTTACCAAGGCAAGATGTTTGAAGAGACATCTGCGGCGAGCTCAACGCGGCC 603
 Db 1018 ACCGTTACCAAGGCAAGATGTTTGAAGAGACATCTGCGGCGAGCTCAACGCGGCC 1077
 QY 604 TCGCGGAGAGATCTCAACTTCACTGCGCGGAGCTGCTGCTGCTGCTGCTGCTGCTGCT 663
 Db 1078 TCGCGGAGAGATCTCAACTTCACTGCGCGGAGCTGCTGCTGCTGCTGCTGCTGCTGCT 1137
 QY 664 CCMAAGCGGAGCCCACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 723
 Db 1138 CCMAAGCGGAGCCCACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1197
 QY 724 AGCGCGGAGATCTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 783
 Db 1188 AGCGCGGAGATCTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1257
 QY 784 ACCGCGGAGATCTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 843
 Db 1258 ACCGCGGAGATCTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1317
 QY 844 ACTTGGGAGAGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
 Db 1318 ACTTGGGAGAGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1377
 QY 904 CCTATGCGCGCTCTTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 963
 Db 1378 CCTATGCGCGCTCTTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1437
 QY 964 CCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1023
 Db 1438 CCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1497
 QY 1024 AGAATTCATCTCTGCAAG 1046

Db 1498 AGAATTCATCTGCAAG 1520

RESULT 10
 US-08-997-685A-1
 ; Sequence 1, Application US/0897685A
 ; Patent No. 6551821
 ; GENERAL INFORMATION:
 ; APPLICANT: The Trustees of Columbia University
 ; TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
 ; FILE REFERENCE: 0575/54806
 ; CURRENT FILING DATE: US/08/997,685A
 ; NUMBER OF SEQ ID NOS: 60
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 1
 ; LENGTH: 2733
 ; TYPE: DNA
 ; ORGANISM: mouse
 US-08-997-685A-1

Query Match 54.8%; Score 735.2; DB 4; Length 2733;
 Best Local Similarity 78.1%; Pred. No. 8.7e-142;
 Matches 884; Conservative 0; Mismatches 248; Indels 0; Gaps 0;

QY 4 TGGCGTTACCAAGATCTCTAGCCTCTGCGGCTGCTGCGGCTCTGACGCTGATCCGCT 63
 Db 737 TGAAGTTTACCAAAATCTCAAGCTCTGCGGCTATTAAGCCTTCAAGGTTATACAGAT 796
 QY 64 ACATCCATCACTGGAGAGATCTTCAACATGACCTATGACCTGAGCCGCGGTATGA 123
 Db 797 ACATACACAGATGGAGAGATCTTCAACATGACCTATGACCTGAGCCGCTGATGTC 856
 QY 124 GAATCTGCAATCTCATCACTGATGATGCTGCTCTGCACTGAGACGCTGCTGAGT 183
 Db 857 GCATCTTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 916
 QY 184 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
 Db 917 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 976
 QY 244 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 303
 Db 977 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1036
 QY 304 TGTGATGAGGATAGCG 363
 Db 1037 TGTGATGAGGATAGCG 1096
 QY 364 TCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 423
 Db 1097 TCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1156
 QY 424 TCCAGTCCCTGCACTCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 483
 Db 1157 TCCAGTCCCTGCACTCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1216
 QY 484 ACATGCTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
 Db 1217 ACATGCTCTTCCACAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1276
 QY 544 ACCGTTACCAAGGCAAGATGTTTGAAGAGACATCTGCGGCGAGCTCAACGCGGCC 603
 Db 1277 ACCGTTACCAAGGCAAGATGTTTGAAGAGACATCTGCGGCGAGCTCAACGCGGCC 663
 QY 604 TGGCGGAGAGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 663
 Db 1337 TGAAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1396
 QY 664 CCMAAGCGGAGCCCACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 723
 Db 1397 CCMAAGCGGAGCCCACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1456

OY	724	AGCCGGGGAATCAATCATCCGCCAAGGCA	CCATCGGGAAAGAAATGACTTCAATCCAGC	783
Db	1457	AGCCCGGAGACTATATCAATTCGAGAGAGAGCTGTGGGAGAGAAATGATATTCAATCCAGC		1518
OY	784	ACGGCGTGGTCAAGCGTGTCTACTTAAAGGCAACAAAGAGATGAAAGCTGTCCGATGGCTCT		843
Db	1517	ACGGGTGTGTGGCGGTATTCACCAAGTCCAGTAAAGAAATGAAGCTGACAGATGGCTCTT		1578
OY	844	ACTTGGGGAAGATCTGCCTGCTCACCCGGGGCCGCGGACGGCGAGCGTGGGGCTGACA		903
Db	1577	ACTTCGGAGAAATATGCTCGCTGCACCAAGGGCCGCGGACCTGCAGTGTCCGAGCTGTATA		1638
OY	904	CCTACCTGGCGCTCTATTTGCGTGAACGATGAGCAATTTCAAGAGGTGCGAGAGAGTACC		963
Db	1637	CCTACTGTGCTGCTTTTACTTCCTCTTTGCGTGAACATTTCAATGAGGCTTTGGAGGAAATTC		1698
OY	964	CCATGATCGGGCGCGCTTTCGAGACGATGGCCATGACCGCGCTGAGCCGATTCGGCAAGA		1023
Db	1697	CAATGATGAGAAAGCCTTTTGAGACATTTGCTATTGACCGATCGATGGGATAGGCAAGA		1758
OY	1024	AGATTTCATCTCTCTGCACAAGGTGACATGACCTCACTCGGGCGTATTCAACAACC		1083
Db	1757	AAAACCTATTTCTCTCTGCAAGAGTTCGAAAGGATCTAAACACTGCTGTTTTCACAACC		1818
OY	1084	AGGAGAACGCATATCCAGAGATCGTCAAGTATGACCCGGGAGATGGTGGCA		1135
Db	1817	AGGAGAACGAGTCTGTAAAGCAGATCGTGAACATGACCCGAGAGATGGTATCA		1868

RESULT 11
US-09-086-436-34
Sequence 34, Application US/09086436

? TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
 ? TITLE OF INVENTION: Uses Thereof
 ? FILE REFERENCE: 0575/54806-A
 ? CURRENT APPLICATION NUMBER: US/09/086,436
 ? CURRENT FILING DATE: 1998-05-28
 ? NUMBER OF SEQ ID NOS: 67
 ? SOFTWARE: PatentIn Ver. 2.1
 ? SEQ ID NO 34
 ? LENGTH: 1518
 ? TYPE: DNA
 ? ORGANISM: Murine
 ? US-09-086-436-34

Query Match	52.6%;	Score 706;	DB 4;	Length 1518;
Best Local Similarity	85.3%;	Pred. No. 7.6e-136;		
Matches 787; Conservative	0;	Mismatches 136;	Indels 0;	Gaps 0

OY	TTGGCTTCAACAAGATCTCCAGCCCTCTGGGCTGCTGACGCTCAAGCCATTCGACT	63
Db	596 TCCGTTTCACTAAGATCTCAGCCTTCGCGCTCTTAAAGCTTTCCCGCTCAATTCGAT	655
OY	64 ACATCATCATGTGGGAGAGATCTTTCACATGACCTTACCTGGCAGCGCGTGATGA	123
Db	656 ACATTCATCATGTGGGAGAGATTTTTCACATGACCTTACCTGGCAGCGCGTGATGAC	715
OY	124 GAATCTGCATCTTCATCAGCATGATGCTGCTCTGCGCATGCGACGGCTGCTGCAGT	183
Db	716 GCATCTGGAACCTCATTTGGCATGATGCTCTCTGTGTCACTGGGATGGCTGCTGCAGT	775
OY	184 TCCCTGGGCCCATGCTGCAGGACCTTCCCGCGCAATGCTGGGTGTTCATCAATGGCATGG	243
Db	776 TCCCTAGGCCCATGCTGCAGGACCTTCCCGCATGACCTGGGTGTTCATCAATGGCATGG	835

QY	244	TGAACCACTCGGAGATGAACATGTACTCTCCTCCGCACTCTTCAAGGCATGAGCAATCG	303
Db	836	TGAATAACTCTCCGGGGGAAAGCAATCTTCTTACGCCCTCTTCAAGGCATGAGCAATCG	895
QY	304	TGTGCATCGAGGTAACGGCCGAGCGCCGCAAGAGCATGAACGACATCTGTGGCTGACATCG	363
Db	896	TGTGCATTTGGGATATGAGACGGCAGAGCAACCCGTAGAGCATGTGTGAACGTCTGGCTCACATCG	955
QY	364	TCAGCATGATTTGTGGGTGCCACTTGTACGCCATGTTCATCGGCACCGCCACTGCCCTGA	423
Db	956	TCAGCATGATCGTGGGGGCAACCTGTCTATGCGATGTTCATCGGCACCGCCACTGCCCTGA	1011
QY	424	TCCAATCGCTGGAATCTCTCGCGGGCCCAAGTACACAGAAAGTATCAACGAGGTGAGCAAT	483
Db	1016	TCCAATCGCTTGAATCTCTCGCGGCCCAAGTATCAAGAAAGTATTAACAGGTGAGCAAT	1071
QY	484	ACATGTCCCTTCCACAAAGTCGACAGTGACTTCGCGCAGAAAGATCCACGATCTATAGAG	543
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Db	1136	ACCGTTACCAAGGCAAGATGTTTGAATGAGAAAGATCCTGGGTAGTTGATGAGGCCAC	1191
QY	604	TGCGGAGAGATCGTCAACTTTCAACTGCGCGAAGCTGTGGCTCTCATGCGCGTGTTCG	663
Db	1196	TTTCGAGAGAGATCATCAACTTTTAATCTGCCAAACTGGTGGCATTCACGCCATGTGTTG	1251
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Db	1256	CCAAAGCGAGATCCCAACTTTTGGATCATGCTGACCAAGTGGCGTTCGAGGCTTTC	1311
QY	724	AGCGCGGTGACTACATCATTCGCGCAAGGACCATGCGGAAAGATGTACTTCATCATCAG	783
Db	1316	AGCGCGGGAATTAATCATTCGCGCAAGGACCATGCGCAAGAAATGTACTTCATCATCAG	1371
QY	784	ACGGCGTGTCAACGCTGTCTACTTAAGGCAACAGAAATGAAGCTGTGCCATGTGCTCT	843
Db	1376	ACGGCGTGTCAACGCTGTCTACTTAAGGCAACAAAGAACAGAGCTGCTGAATGGCTCT	1431
QY	844	ACTTGGGGGAATCTGCTGCTACCCGGGGCCGCGCACGGCGAGCGGTGCGGGCTGACA	903
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QY	904	CCTACTGCGCGCTCATTTGCGTG	926
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RESULT 12
US-08-997-685A-5
; Sequence 5, Application US/08997685A

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; APPLICANT: The Trustees of Columbia University
; APPLICANT: Kandell, Eric
; TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
; FILE REFERENCE: 0575/54806
; CURRENT APPLICATION NUMBER: US/08/997,685A
; CURRENT FILING DATE: 1997-12-12
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatenIn version 3.1
; SEQ ID NO 5
; LENGTH: 1507
; TYPE: DNA
; ORGANISM: mouse;
; US-08-997-685A-5

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Query Match	51.3%;	Score 688.8;	DB 4;	Length 1507;
Best Local Similarity	85.4%;	Pred. No. 2.6e-132;		
Matches 779; Conservative	0;	Mismatches 132;	Indels 1;	Gaps 1;

QY 15 AAGATCTGAGCTCTGCGGCTGCTGCGCTCTGACGCTGATCGGCTACATCCATCAG 74
 Db 597 AAGATCTGAGCTCTGCGGCTCTGCGCTCTGAGAGCTTTCGCGCTCATATTCATATCAG 656
 QY 75 TGGGAGGAGATCTTCCACATGACCTATGACCTGCGACGCGGTGATGAGATTCGCAAT 134
 Db 657 TGGGAGGAGATCTTCCACATGACCTATGACCTGCGACGCGGTGATGAGATTCGCAAT 716
 QY 135 CTGATGACATGATGCTGCTGCTGCTGACCTGAGAGGCTGCTGAGATTCCTGAGTCC 194
 Db 717 CTGATGACATGATGCTGCTGCTGCTGACCTGAGAGGCTGCTGAGATTCCTGAGTCC 776
 QY 195 ATGCTGACAGACTTCCGCGCAACTGCTGAGTGTCCATCAATGAGATGTAACCACTCG 254
 Db 777 ATGCTGACAGACTTCCGCGCAACTGCTGAGTGTCCATCAATGAGATGTAACCACTCG 836
 QY 255 TGGAGTGAAGTGTACTCTCTGCTGCTCTTCAAGGCTGACATGAGCATGCTGACCTCG 314
 Db 837 TGGGAGGAGAGATATCTCTGCTGCTCTTCAAGGCTGACATGAGCATGCTGACCTCG 896
 QY 315 TACGCGCCGCGACGCGCGCGAGAGATGACGACATCTGAGCTGACCATGCTGACATGAT 374
 Db 897 TATGAGCGGACGAGGACCGGTAGGCAATGCTGACGCTGAGCTGACCATGCTGACATGAT 956
 QY 375 GTGGGTGACACCTGCTGACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 434
 Db 957 GTGGGTGACACCTGCTGACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1016
 QY 435 GACTCTCTGCGCGCGCGCGAGTACCGAGAGATCAAGAGGTGAGAGCAGATGCTCTTC 494
 Db 1017 GACTCTCTGCGCGCGCGCGAGTACCGAGAGATCAAGAGGTGAGAGCAGATGCTCTTC 1076
 QY 495 CACAAAGCTGCGCGCGCGAGTACCGAGAGATCAAGAGGTGAGAGCAGATGCTCTTC 554
 Db 1077 CACAAAGCTGCGCGCGCGAGTACCGAGAGATCAAGAGGTGAGAGCAGATGCTCTTC 1136
 QY 555 GCGAAGATGTTTGAAGAGGACGATCTCTGCGCGAGCTCAAGCGGCGCTGCGGAGAG 614
 Db 1137 GCGAAGATGTTTGAAGAGGACGATCTCTGCGCGAGCTCAAGCGGCGCTGCGGAGAG 1196
 QY 615 ATGCGCACTTCAACGCGGAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 674
 Db 1197 ATGCGCACTTCAACGCGGAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1256
 QY 675 CCGAAGCTGCGCGCGCGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 734
 Db 1257 CCGAAGCTGCGCGCGCGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1316
 QY 735 TACATCATCTCGGAGAGGACCATGCGGAGAGAGATGATCTTATTCAGACGCGGTGTC 794
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 QY 795 AGCGGTGCTACTAAGGCGCAACAGAGATGAGTGTGCTGCTGCTGCTGCTGCTGCTG 854
 Db 1377 AGCGGTGCTACTAAGGCGCAACAGAGATGAGTGTGCTGCTGCTGCTGCTGCTGCTG 1436
 QY 855 ATCTGCTGCTGCTGCTGCGGCGCGCGAGCGGAGCGGTGCTGCTGCTGCTGCTGCTG 914
 Db 1437 ATCTGCTGCTGCTGCTGCGGCGCGCGAGCGGAGCGGTGCTGCTGCTGCTGCTGCTG 1495
 QY 915 CTCTATTGCTGCTG 926
 Db 1496 CTCTATTGCTGCTG 1507

RESULT 13
 US-09-086-436-38
 ; Sequence 38, Application US/09086436
 ; Patent No. 6703485
 ; GENERAL INFORMATION:
 ; APPLICANT: Kandel, Eric R.
 ; APPLICANT: Santoro, Bina
 ; APPLICANT: Bartsch, Duran

; APPLICANT: Siegelbaum, Steven
 ; APPLICANT: Tibbs, Gareth
 ; APPLICANT: Grant, Seth
 ; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
 ; FILE REFERENCE: 0575/54806-A
 ; CURRENT APPLICATION NUMBER: US/09/086,436
 ; NUMBER OF SEQ ID NOS: 28
 ; SOFTWARE: Patent In Ver. 2.1
 ; SEQ ID NO 38
 ; LENGTH: 2246
 ; TYPE: DNA
 ; ORGANISM: Human
 US-09-086-436-38
 Query Match 50.7%; Score 680.2; DB 4; Length 2246;
 Best Local Similarity 75.0%; Pred. No. 1,6e-130;
 Matches 850; Conservative 0; Mismatches 283; Indels 0; Gaps 0;

QY 4 TGGCGCTTACCAAGATCTCTGAGCTCTGCGGCTGCTGCGGCTCTCTCAAGCTGATCCGCT 63
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 QY 64 ACATCATAGTGGAGAGATCTTCCACATGACCTATGACCTGCGCAGCGGATGATGA 123
 Db 467 ACATCATAGTGGAGAGATCTTCCACATGACCTATGACCTGCGCAGCGGATGATGA 526
 QY 124 GGATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 183
 Db 527 GAATTTTAAATCTCATGCGGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 586
 QY 184 TCCGAGGCCCATGCTGAGGACTTCCGCGCAACTGCTGAGGATCTCATCAATGAGCAATG 243
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 Db 767 TGAAGATGATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 826
 QY 424 TCCAGTGGCTGAGATCTCTGCGGCGCGAGTACGAGGAGGAGGAGGAGGAGGAGGAGGAG 483
 Db 827 TCCAGTGGCTGAGATCTCTGCGGCGCGAGTACGAGGAGGAGGAGGAGGAGGAGGAGGAG 886
 QY 484 ACATGCTCTTCAACAGCTGCAAGCTTCCGCGCAAGAGATCAAGATCAAGATCAAGATCA 543
 Db 887 ACATGCTCTTCAACAGCTGCAAGCTTCCGCGCAAGAGATCAAGATCAAGATCAAGATCA 946
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 Db 947 ACAATATCAAGAGGCAAGATGTTTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1006
 QY 604 TGGCGAGAGAGATGCTCAACTTCAAGCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 663
 Db 1007 TGAAGAGAGAGATGCTCAACTTCAAGCTGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1066
 QY 664 CCAAGCGGAGCCCAACTTCTGCTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 723
 Db 1067 CTAATGCGGAGCTCTAATTTTGTGACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1126
 QY 724 AGCGGAGTGAATATATATGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 783
 Db 1127 AACCTGAGATTAATATATGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1186
 QY 784 ACGGAGTGTGAGGAGTGTCTAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 843

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Db 1247 ACTTTGAGAGATTTGCTGCTGACCAAGAGCGTGTGACGAGTGTGAGCTGATTA 1306
Qy 904 CCTACTGCGGCTCTATTCGCTGAGCGGTGACAACTTCAACGAGGTGTGAGAGATACC 963
Db 1307 CATATGTGCTGCTTACTCACTTTCCGTGACAAATTTCAAGAGGTCTTGAAGAAATTC 1366
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US-08-997-685A-9
; Sequence 9, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
; APPLICANT: The Trustees of Columbia University
; APPLICANT: Kandel, Eric
; TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
; CURRENT FILING DATE: 05/5/54806
; CURRENT APPLICATION NUMBER: US/08/997,685A
; SOFTWARE: Patent version 3.1
; SEQ ID NO 9
; LENGTH: 2263
; TYPE: DNA
; ORGANISM: human
US-08-997-685A-9
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Query Match 50.7%; Score 680.2; DB 4; Length 2263;
Best Local Similarity 75.0%; Pred. No. 1.6e-110;
Matches 850; Conservative 0; Mismatches 283; Indels 0; Gaps 0;
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Qy 64 ACATTCATCAGTGGAGAGATTTTCCATGACATGACCTTATGACCTGCGGCGGTATGA 123
Db 467 ACATATCATCATGAGAGAGATATTTCCATGACATGATGATCTGCGGCTGACGTGTGA 526
Qy 124 GGATCTGCAATCTCATGACATGATGCTGCTGCTGCACTGAGAGCGGCTGTGAGT 183
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Qy 184 TCTGATGCCCATGCTGAGAGACTTCCGCGCAACTGCTGAGGTTCATCATGAGCATGG 243
Db 587 TCTTAGTACCACTAGTAGAGACTTCCACACAGATGTGGGTGTCTTTAAATGAATGG 646
Qy 244 TGAACCACTGCTGAGAGATGTAATCTCTTCCATGCTTTAAAGCCATGAGCCATGTC 303
Db 647 TTAATGATTTCTTGGGAGAAAGCATATTCATACGCACTTTCAAGCTATGATGATGTC 706
Qy 304 TGTGATCGAGGTACGCGCGGAGGCGCCGAGAGATGAGGAGATCTGCGGTGCAATGC 363
Db 707 TGTGATCGAGGTATGAGAGCCAGCCAGTCAAGATGATGATCTGAGATTAACCATGC 766
Qy 364 TCAGCATGATTTGTGGGTGCACTGCTAGCCATGTTTATGAGGCGCAAGCCCTCTCA 423
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Db 767 TGAACATGATGTCGGGGCCACCTGCTATGCAATGTTTGTGCGGCATGACCAAGCTTTAA 826
Qy 424 TCCAGTGTGAGACTCTTCGGCGGCGAGTACAGAGAGATCAAGCAGGTGGAGAGT 483
Db 827 TCCAGTCTTGAGATTTTCAGAGGCGAGTATCAAGAGATATTAAGATGAGCAAT 886
Qy 484 ACATGTCCTTCAACAAGCTGCAAGCTGACTTCCGCGCAAGATCCAGACTATATGAGC 543
Db 887 ACATGCTATTCATTAAGTTTACAGCTGATATGGGTGAGAAAGATATCATGATTAATGAC 946
Qy 544 ACCGTTTCCAGGAGAGATTTTGAAGAGACAGATCTCGGGGAGCTCAACGGGCCC 603
Db 947 ACAGATACCAAGGCAAAATCTTTGATGAGGAAATATTTCAATGAACTCAATGATCTTC 1006
Qy 604 TGGGGAGAGATGTCATCTTCAACTGCGGGAAGCGTGGGCTCCATGCCGCTGTCG 663
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Qy 664 CCAAGCGGCAAGCCCACTTCTGTCACGCGCATGCTGACCAAGCTCAAGTTGCAAGCTTCC 723
Db 1067 CTATATGCGGATCTTAATTTTGTGATGCTGACATGCTGAGCAAGTTGAGATTTGAGGTGTTTC 1126
Qy 724 AGCGGATGATCATCATCATCCGAGAGCAACATCGGAGAAAGATGATCTTATCCAGC 783
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Db 1427 AAATTCATTTCTTCTGCAAAAAGTTCCAGAAAGATTCGAACACTGCTTTTCAACATC 1486
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RESULT 15

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US-09-774-528-238
; Sequence 238, Application US/09774528
; Patent No. 6743619
; GENERAL INFORMATION:
; APPLICANT: Tang, Y. Tom
; APPLICANT: Zhou, Ping
; APPLICANT: Goodrich, Ryle
; APPLICANT: Liu, Chenghua
; APPLICANT: Asundi, Vinod
; APPLICANT: Ren, Feiyan
; APPLICANT: Zhang, Jie
; APPLICANT: Zhao, Qing A.
; APPLICANT: Yang, Yonghong
; APPLICANT: Xue, Aidong J.
; APPLICANT: Wehman, Tom
; APPLICANT: Wang, Jian-Rui
; APPLICANT: Wang, Dunru
; APPLICANT: Dimaec, Radoje T.
; TITLE OF INVENTION: No. 6743619el Nucleic Acids and
; FILE REFERENCE: 802
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Thu Sep 1 12:59:36 2005

us-09-640-582a-1.rni

Page 12

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1 CURRENT APPLICATION NUMBER: US/09/774,528
2 CURRENT FILING DATE: 2001-01-30
3 NUMBER OF SEQ ID NOS: 441
4 SOFTWARE: pt fl_genes Version 2.0
5 SEQ ID NO 2328
6 LENGTH: 3224
7 TYPE: DNA
8 ORGANISM: Homo sapiens
9 FEATURE:
10 NAME/KEY: CDS
11 LOCATION: (1)..(2673)
12 US-09-774-528-238

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Query Match	50.7%;	Score 680.2;	DB 4;	Length 3224;
Best Local Similarity	75.0%;	Pred. No. 1.8e-130;		
Matches 850; Conservative	0;	Mismatches 283;	Indels 0;	Gaps 0

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Db	1670	CATATTGTGTCTTACTCACTTTCCTGGACAAATTTCACAAGAGGTCTGGAGAAATATC	1729
QY	964	CCATGATCGGCGCCGCTTGGAGACGTGGCCATTCACCGCTGGACCGCATCGGCAAGA	1023
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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

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Maximum Match 100%
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- 26: /cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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4	1207	89.9	1792	10	US-09-086-436-40
5	1207	89.9	1792	19	US-10-753-991-40
6	1194.4	89.0	1790	21	US-10-384-107-11
7	1191.6	88.8	2125	17	US-10-292-798-2011

8	1109.2	82.7	1966	15	US-10-017-161-2369	Sequence 2369, App
9	1048.6	78.1	3102	14	US-10-067-457-6	Sequence 6, Appl1
10	927.2	69.1	4751	18	US-10-311-795-5	Sequence 5, Appl1
11	927.2	69.1	5065	14	US-10-067-457-4	Sequence 4, Appl1
12	927.2	69.1	5499	18	US-10-276-774-973	Sequence 973, App
13	874.2	65.1	1512	10	US-09-086-436-32	Sequence 32, Appl
14	874.2	65.1	1512	19	US-10-753-991-32	Sequence 32, Appl
15	871	64.9	1584	21	US-10-384-107-3	Sequence 3, Appl1
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19	751.8	56.0	2325	14	US-10-158-711-9	Sequence 9, Appl1
20	751.8	56.0	2976	17	US-10-120-988-317	Sequence 317, App
21	751.8	56.0	3496	18	US-10-311-795-7	Sequence 7, Appl1
22	735.2	54.8	2733	21	US-10-384-107-1	Sequence 1, Appl1
23	706	52.6	1518	10	US-09-086-436-34	Sequence 34, Appl
24	706	52.6	1518	19	US-10-753-991-34	Sequence 34, Appl
25	688.8	51.3	1507	21	US-10-384-107-5	Sequence 5, Appl1
26	681.8	50.8	2990	18	US-10-287-226-351	Sequence 351, App
27	680.2	50.7	1873	16	US-10-296-270-19	Sequence 19, Appl
28	680.2	50.7	1873	16	US-10-296-270-20	Sequence 20, Appl
29	680.2	50.7	2246	10	US-09-086-436-38	Sequence 38, Appl
30	680.2	50.7	2246	19	US-10-753-991-38	Sequence 38, Appl
31	680.2	50.7	2263	21	US-10-384-107-9	Sequence 9, Appl1
32	680.2	50.7	2484	16	US-10-296-270-22	Sequence 22, Appl
33	680.2	50.7	2484	16	US-10-296-270-24	Sequence 24, Appl
34	680.2	50.7	2670	18	US-10-311-795-1	Sequence 1, Appl1
35	680.2	50.7	2673	14	US-10-158-684-3	Sequence 3, Appl1
36	680.2	50.7	2673	14	US-10-158-711-3	Sequence 3, Appl1
37	680.2	50.7	2673	16	US-10-296-270-23	Sequence 23, Appl
38	680.2	50.7	2673	16	US-10-296-270-25	Sequence 25, Appl
39	680.2	50.7	2748	21	US-10-466-992-1	Sequence 1, Appl1
40	680.2	50.7	2748	21	US-10-466-992-3	Sequence 3, Appl1
41	680.2	50.7	2748	21	US-10-466-992-13	Sequence 13, Appl
42	680.2	50.7	2748	21	US-10-466-992-15	Sequence 15, Appl
43	680.2	50.7	2748	21	US-10-466-992-17	Sequence 17, Appl
44	680.2	50.7	2791	16	US-10-296-270-1	Sequence 1, Appl1
45	680.2	50.7	2791	16	US-10-296-270-5	Sequence 5, Appl1

ALIGNMENTS

RESULT 1
US-10-067-457-2
; Sequence 2, Application US/10067457
; Publication No. US20030082513A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharma Deutschland GmbH
; TITLE OF INVENTION: Process for identifying substances which modulate the
; FILE REFERENCE: AVE D-2000/A006
; CURRENT APPLICATION NUMBER: US/10/067,457
; PRIOR FILING DATE: 2002-04-09
; PRIOR APPLICATION NUMBER: US/09/779,587
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 2
; LENGTH: 3372
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-067-457-2

Query Match 96.6%; Score 1297; DB 14; Length 3372;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1328; Conservative 7; Mismatches 3; Indels 3; Gaps 3;
QY 4 TGGCGTTCACAGATCTCAGCCTCTGCGGCTCGGCGCTTCAGCGCTATTCGCT 63
DB 1012 TGGCGTTCACAGATCTCAGCCTCTGCGGCTCGGCGCTTCAGCGCTATTCGCT 1071
QY 64 ACATCATGATGAGAGAGATCTTCACATGACCTATGACCTGCGCAGCGCGGTATGA 123

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Db 1072 ACATTCATCAGTGGAGAGATCTTCCACATGACCTTACGCTGAGCCGAGGAGTGA 1131
Qy 124 GGATTCGCAATCTCATCAGCATGATGCTGCTTGCCTGCACTGAGAGCGGCTGCAAGT 183
Db 1132 GGATTCGCAATCTCATCAGCATGATGCTGCTTGCCTGCACTGAGAGCGGCTGCAAGT 1191
Qy 184 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
Db 1192 TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1251
Qy 244 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 303
Db 1252 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1311
Qy 304 TGTGATCGGGTACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 363
Db 1312 TGTGATCGGGTACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1371
Qy 364 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
Db 1372 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1431
Qy 424 TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 483
Db 1432 TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1491
Qy 484 ACATGCTCTTCCACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
Db 1492 ACATGCTCTTCCACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1551
Qy 544 ACCGTTACGAGGCGAAGATGTTTGAAGAGAGAGATCTGCGGCGAGCTCAACGCGGCC 603
Db 1552 ACCGTTACGAGGCGAAGATGTTTGAAGAGAGAGATCTGCGGCGAGCTCAACGCGGCC 1611
Qy 604 TCCGCGAGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 663
Db 1612 TCCGCGAGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1671
Qy 664 CCAAGCGGCGAAGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 723
Db 1672 CCAAGCGGCGAAGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1731
Qy 724 AGCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 783
Db 1732 AGCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1791
Qy 784 AGCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 843
Db 1792 AGCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1851
Qy 844 ACTTGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
Db 1852 ACTTGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1911
Qy 904 CCTACTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 963
Db 1912 CCTACTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1971
Qy 964 CCATGATGCGGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1023
Db 1972 CCATGATGCGGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2031
Qy 1024 AGAATTCCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1083
Db 2032 AGAATTCCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2091
Qy 1084 AGGAAGAGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1143
Db 2092 AGGAAGAGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2151
Qy 1144 AGCTGGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1202
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Db 2152 AGCTGGG-TCAGCGGCTGGGCTCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2210
Qy 1203 GCCATCGCCAGCTGTGAGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1261
Db 2211 GCCATCGCCAGCTGTGAGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2270
Qy 1262 CTCGTGGGCGCGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGG 1321
Db 2271 CTCGTGGGCGCGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGG 2330
Qy 1322 GCACCTGCGCGCNCCTGACCC 1342
Db 2331 GCACCTGCGCGCCTGACCC 2351
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RESULT 2
US-10-311-795-3
; Sequence 3, Application US/10311795
; Publication No. US2004003943A1
; GENERAL INFORMATION:
; APPLICANT: SmithKline Beecham plc
; TITLE OF INVENTION: New Use
; FILE REFERENCE: P32614
; CURRENT APPLICATION NUMBER: US/10/311,795
; CURRENT FILING DATE: 2002-12-19
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO: 3
; LENGTH: 3459
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-311-795-3
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Query Match 96.5%; Score 1295.4; DB 18; Length 3459;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1327; Conservative 7; Mismatches 4; Indels 3; Gaps 3;
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Qy 4 TCCGCTTACCAAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 63
Db 1030 TCCGCTTACCAAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1089
Qy 64 ACATTCATCAGTGGAGAGATCTTCCACATGACCTTACGCTGAGAGCGGCTGATGA 123
Db 1090 ACATTCATCAGTGGAGAGATCTTCCACATGACCTTACGCTGAGAGCGGCTGATGA 1149
Qy 124 GGATTCGCAATCTCATCAGCATGATGCTGCTTGCCTGCACTGAGAGCGGCTGCAAGT 183
Db 1150 GGATTCGCAATCTCATCAGCATGATGCTGCTTGCCTGCACTGAGAGCGGCTGCAAGT 1209
Qy 184 TCTGCTGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 243
Db 1210 TCTGCTGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1269
Qy 244 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 303
Db 1270 TGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1329
Qy 304 TGTGATCGGGTACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 363
Db 1330 TGTGATCGGGTACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1389
Qy 364 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
Db 1390 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1449
Qy 424 TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 483
Db 1450 TCCAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1509
Qy 484 ACATGCTCTTCCACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
Db 1510 ACATGCTCTTCCACAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1569
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QY 544 ACCGTTACGAGGAGAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 603
DB 1570 ACCGTTACGAGGAGAGATGTTTGAAGAGACAGCATCTGGGCGAGCTCAACGGGCCCC 1629
QY 604 TGGCGGAGAGATGCTCAACTTCACTGCGGAGAGCTGGTGGCTTCATGCGGCTGTTCG 663
DB 1630 TGGCGGAGAGATGCTCAACTTCACTGCGGAGAGCTGGTGGCTTCATGCGGCTGTTCG 1689
QY 664 CCAAGCGGACCCCAACTTCGTCAAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 723
DB 1690 CCAAGCGGACCCCAACTTCGTCAAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 1749
QY 724 AGCGGGGTGACTACATCATCCGAGAGGACCATCGGAGAGAGATGTAATCTTCACTCAAGC 783
DB 1750 AGCGGGGTGACTACATCATCCGAGAGGACCATCGGAGAGAGATGTAATCTTCACTCAAGC 1809
QY 784 AGCGGTGCTAGCTGCTGCTCACTAAGGGGACAAAGAGATGAAGTGTTCGATGCTCTCT 843
DB 1810 AGCGGTGCTAGCTGCTGCTCACTAAGGGGACAAAGAGATGAAGTGTTCGATGCTCTCT 1869
QY 844 ACTTGCGGAGATGCTGCTGCTCAACCGGCGCGCGGCGAGCGGTGCGGCGTGAACA 903
DB 1870 ACTTGCGGAGATGCTGCTGCTCAACCGGCGCGCGGCGAGCGGTGCGGCGTGAACA 1929
QY 904 CCTACTGCGCCTCTATTCTGCTGAGCGTGAACACTTCAACGAGGTGCTGAGAGATACC 963
DB 1930 CCTACTGCGCCTCTATTCTGCTGAGCGTGAACACTTCAACGAGGTGCTGAGAGATACC 1989
QY 964 CCATGATGCGGCGCGCTTCGAGACGCTGAGCATGACCGCCTGAGACCGCATCGGCAAGA 1023
DB 1990 CCATGATGCGGCGCGCTTCGAGACGCTGAGCATGACCGCCTGAGACCGCATCGGCAAGA 2049
QY 1024 AGAATTCATCCTCTGAGACAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 1083
DB 2050 AGAATTCATCCTCTGAGACAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 2109
QY 1084 AGGAGAACGCGATCATCCAGAGAGATGTCATGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 1143
DB 2110 AGGAGAACGCGATCATCCAGAGAGATGTCATGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 2169
QY 1144 AGCTGGGCTGAGCGGCTGCTTCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1202
DB 2170 AGCTGGGCTGAGCGGCTGCTTCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2228
QY 1203 GCGATCGCGACGCTGAGAGAGGCGGCGCATGAGCTTCTGCGCGCA-GTGGCGGCGCGCG 1261
DB 2229 GCGATCGCGACGCTGAGAGAGGCGGCGCATGAGCTTCTGCGCGCA-GTGGCGGCGCGCG 2288
QY 1262 CTCGTGGGCGCGCTGCGCTGCGCTGCGCGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 1321
DB 2289 CTCGTGGGCGCGCTGCGCTGCGCTGCGCGCGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 2348
QY 1322 GCACTTGGCGCGCTCAACC 1342
DB 2349 GCACTTGGCGCGCTCAACC 2369

RESULT 3
US-10-756-149-1720
; Sequence 1720, Application US/10756149
; Publication No. US20050181375A1
; GENERAL INFORMATION:
; APPLICANT: Zlotnik, Albert
; APPLICANT: Zlotnik, Albert
; TITLE OF INVENTION: NOVEL METHODS OF DIAGNOSIS FOR METASTATIC CANCER, COMPOSITIONS AND
; TITLE OF INVENTION: METHODS OF SCREENING FOR MODULATORS OF METASTATIC CANCER
; FILE REFERENCE: file
; CURRENT APPLICATION NUMBER: US/10/756,149
; CURRENT FILING DATE: 2004-01-12
; NUMBER OF SEQ ID NOS: 5818
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1720
; LENGTH: 3459
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TYPE: DNA
ORGANISM: Homo Sapiens
US-10-756-149-1720

Query Match      96.5%; Score 1295.4; DB 22; Length 3459;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1327; Conservative 7; Mismatches 4; Indels 3; Gaps 3;

QY 4 TGGCGTTACCAAGATCTCTGAGCGCTCCGCGGCGCTGGGCGCTGCAAGCGCTGATCCGCT 63
DB 1030 TGGCGTTACCAAGATCTCTGAGCGCTCCGCGGCGCTGGGCGCTGCAAGCGCTGATCCGCT 1089
QY 64 ACATCATCAGTGGAGAGAGATCTTCAATGACATGACATGACATGACATGACATGACATGACATG 123
DB 1090 ACATCATCAGTGGAGAGAGATCTTCAATGACATGACATGACATGACATGACATGACATGACATG 1149
QY 124 GAATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 183
DB 1150 GAATCTGCAATCTCATGACATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1209
QY 184 TCCGTGGCCCATGCTGAGAGACCTTCCGCGGCACTGCTGGGTGTCCATGATGATGATGATGATG 243
DB 1210 TCCGTGGCCCATGCTGAGAGACCTTCCGCGGCACTGCTGGGTGTCCATGATGATGATGATGATG 1269
QY 244 TGAACCACTCGTGAAGTGAATCTGACTCTTCCGACTCTTCAAGGACCATGACCATGAC 303
DB 1270 TGAACCACTCGTGAAGTGAATCTGACTCTTCCGACTCTTCAAGGACCATGACCATGACCATG 1329
QY 304 TGTGATCGGGTACCGCGCGGAGCGCGCGGAGAGATGACGAGATCTGCTGACATGAC 363
DB 1330 TGTGATCGGGTACCGCGCGGAGCGCGCGGAGAGATGACGAGATCTGCTGACATGAC 1389
QY 364 TCAGCATGATGTTGGGTGGCCACTGCTACGACATGTTTATGTTGTTGTTGTTGTTGTTGTTGTTGTT 423
DB 1390 TCAGCATGATGTTGGGTGGCCACTGCTACGACATGTTTATGTTGTTGTTGTTGTTGTTGTTGTTGTT 1449
QY 424 TCCAGTGGCTGAGTCTCTCGCGGCGGAGTACAGAGAGATGACAGAGATGAGAGATGAGAGATG 483
DB 1450 TCCAGTGGCTGAGTCTCTCGCGGCGGAGTACAGAGAGATGAGAGATGAGAGATGAGAGATG 1509
QY 484 ACATGTCCTTTCACAGCTGCGAGCTGACTTCCGCGAGAGATGACAGATGACTATGAGC 543
DB 1510 ACATGTCCTTTCACAGCTGCGAGCTGACTTCCGCGAGAGATGACAGATGACTATGAGC 1569
QY 544 ACCGTTACGAGGAGAGATGTTTGAAGAGACAGCATCTGGGAGACTCAACGGGCCCC 603
DB 1570 ACCGTTACGAGGAGAGATGTTTGAAGAGACAGCATCTGGGAGACTCAACGGGCCCC 1629
QY 604 TGGCGGAGAGATGCTCAACTTCACTGCGGAGAGCTGGTGGCTTCATGCGGCTGTTCG 663
DB 1630 TGGCGGAGAGATGCTCAACTTCACTGCGGAGAGCTGGTGGCTTCATGCGGCTGTTCG 1689
QY 664 CCAAGCGGACCCCAACTTCGTCAAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 723
DB 1690 CCAAGCGGACCCCAACTTCGTCAAGGCGCATGCTGACCAAGCTCAAGTTGAGAGTCTTCC 1749
QY 724 AGCGGGGTGACTACATCATCCGAGAGGACCATCGGAGAGAGATGTAATCTTCACTCAAGC 783
DB 1750 AGCGGGGTGACTACATCATCCGAGAGGACCATCGGAGAGAGATGTAATCTTCACTCAAGC 1809
QY 784 AGCGGTGCTAGCTGCTGCTCACTAAGGGGACAAAGAGATGAAGTGTTCGATGCTCTCTCT 843
DB 1810 AGCGGTGCTAGCTGCTGCTCACTAAGGGGACAAAGAGATGAAGTGTTCGATGCTCTCTCTCT 1869
QY 844 ACTTGCGGAGATGCTGCTGCTCAACCGGCGCGCGGCGAGCGGTGCGGCGTGAACA 903
DB 1870 ACTTGCGGAGATGCTGCTGCTCAACCGGCGCGCGGCGAGCGGTGCGGCGTGAACA 1929
QY 904 CCTACTGCGCCTCTATTCTGCTGAGCGTGAACACTTCAACGAGGTGCTGAGAGATACC 963
DB 1930 CCTACTGCGCCTCTATTCTGCTGAGCGTGAACACTTCAACGAGGTGCTGAGAGATACC 1989
QY 964 CCATGATGCGGCGCGCTTCGAGACGCTGAGCATGACCGCTGAGACCGCATCGGCAAGA 1023
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Db	1990	CCATGATCGGGCGGCCCTTTCGAGACGGTGGCCATTGACCCGGCTGGACCGCATTCGGCAGA	2049
Oy	1024	AGAAATTGCATCTCTCGTGCAAAAGGTGACAGATGACTCAATCTCGGGCGCTATTTCACAAAC	1083
Db	2050	AGAAATTGCATCTCTCTGCAAAAGGTGACAGATGACTCAATCTCGGGCGCTATTTCACAAAC	2109
Oy	1084	AGGAGAAAGCCATCATTCGAGGAGATCTCCAACTAGTACGACCGGGAAGTGTGTGACAGAGGCG	1143
Db	2110	AGGAGAAAGCCATCATTCGAGGAGATCTCCAACTAGTACGACCGGGAAGTGTGTGACAGAGGCG	2169
Oy	1144	AGCTGGGCTCAAGCGGTGGGCGCTCTTCCGCGCGCGCGCGCGCGCGCA-GTACACTCG	1200
Db	2170	AGCTGGG-TCAGCGGTGGGCGCTCTTCCGCGCGCGCGCGCGCGCGCGCAAGTACACTCG	2228
Oy	1203	GCCATTCGCGCAGCTGCAGCAGGCGCGCGCGCGCAATGAGCTTCTGCGCGCA-GTGGCGCGGCG	1261
Db	2229	GCCATTCGCGCAGCTGCAGCAGGCGCGCGCGCGCAATGAGCTTCTGCGCGCAAGTGGCGGCGCG	2288
Oy	1262	CTGCGTGGGGGCGCTGGCGCGCTGGCGCGCGCGCGCGCTGTGACGCHGAGYUNYHCCGGGAGSC	1321
Db	2289	CTGCGTGGGGGCGCTGGCGCGCTGGCGCGCGCGCGCGCTGTGACGCGCGCGCGCGCGCGCGCG	2348
Oy	1332	GCACCTGCHGCGNCTTCACCC	1342
Db	2349	GCACCTGCGCGCGCTTCACCC	2369

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RESULT 4
US-09-086-436-40
Sequence 40, Application US/09086436
Publication No. US20030118988A1
GENERAL INFORMATION:
APPLICANT: Kandell, Eric R.
APPLICANT: Santoro, Bina
APPLICANT: Bartsch, Dusan
APPLICANT: Siegelbaum, Steven
APPLICANT: Tibbs, Gareth
APPLICANT: Grant, Seth
TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
TITLE OF INVENTION: Uses Thereof
FILE REFERENCE: 0575/54806-A
CURRENT APPLICATION NUMBER: US/09/086,436
CURRENT FILING DATE: 1998-05-28
NUMBER OF SEQ ID NOS: 67
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO: 40
LENGTH: 1792
TYPE: DNA
ORGANISM: Human
US-09-086-436-40

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Query Match	89.9%;	Score 1207;	DB 10;	Length 1792;
Best Local Similarity	99.0%;	Pred. No. 8.7e-311;		
Matches 1235; Conservative	0;	Mismatches 11;	Indels 2;	Gaps 2.

OY	4	TGGCGTTTACCGAAGATTCCTCAGCCTCTCGGGCTCTGCGCTCTCAGCGCTGAATCCGCT	63
Db	541	TGGCTTACCAAAATCTCAGCCTCTCGGGCTCTGCGCTCTCAGCGCTGAATCCGCT	600
OY	64	ACATCTCAATCAGTGGGAGGAGATCTTCCCAATGACTATAGACTGTGGCCACGGCGGTGATGA	123
Db	601	ACATCTCAATCAGTGGGAGGAGATCTTCCCAATGACTATAGACTGTGGCCACGGCGGTGATGA	660
OY	124	GGATCTGCATATTCATCAGCATGATGCTGCTCTGTGCCACTGGGAGCGGCTGCTGCAGT	183
Db	661	GGATCTGCATATTCATCAGCATGATGCTGCTCTGTGCCACTGGGAGCGGCTGCTGCAGT	720
OY	184	TCTTGATGCCCATGCTGTCAGGACTTCCCGCGCACTGTGCGGTGTCATTCATATGGCATGCG	243
Db	721	TCTTGATGCCCATGCTGTCAGGACTTCCCGCGCACTGTGCGGTGTCATTCATATGGCATGCG	780
OY	244	TGAACCATCTGGGAGTGAACGTACTCTTTCGCACCTCTTCAGGCGCATGAGCCCATGCG	303

Dp	781	TGAAACCACTGTGGAGTGAACCTGATCTCTTCCTTCGACACTCTTTCAGAGCCATATAGCCATATGC	840
Qy	304	TGTGCATTCGGGTATACGATCCGCGAGGCGCCGGAAGCATATGACGACATCTGGCTTACCACTGC	363
Dp	841	TGTGCATTCGGGTATACGATCCGCGAGGCGCCGGAAGCATATGACGACATCTGGCTTACCACTGC	900
Qy	364	TCAGCATGATTTGTGGGTGCACTCTGCTGACGCCATGTTTCAATCGGCGACATGCCACTGCTCTCA	423
Dp	901	TCAGCATGATTTGTGGGTGCACTCTGCTGACGCCATGTTTCAATCGGCGACATGCCACTGCTCTCA	960
Qy	424	TCGATGCGCTGAACTCTCTCGCGGCGCCGATACGAGAGAGTACAGCAGATGTGAGCT	483
Dp	961	TCGATGCGCTGAACTCTCTCGCGGCGCCGATACGAGAGAGTACAGCAGATGTGAGCT	1020
Qy	484	ACATGTCCTTTCACAAAGCTCCACGCTGACTTTCCGCAAGAAAGATCCAGACTACTATGAGC	543
Dp	1021	ACATGTCCTTTCACAAAGCTCCACGCTGACTTTCCGCAAGAAAGATCCAGACTACTATGAAAC	1080
Qy	544	ACCGTTTACGAGGCGAAGATGTTTGAACGAGGACAGCATCTCGGCGAGCTCAACGGGCCCC	603
Dp	1081	ACCGTTTACGAGGCGAAGATGTTTGAACGAGGACAGCATCTCGGCGAGCTCAACGGGCCCC	1140
Qy	604	TGCGGGAGGAGATTCGTCAACTTCAACCTGCGGAAAGCTGTGGGCTCCATCGCCGCTGTTCC	663
Dp	1141	TGCGGGAGGAGATTCGTCAACTTCAACCTGCGGAAAGCTGTGGGCTCCATCGCCGCTGTTCC	1200
Qy	664	CCAAACGCGAAGCCCAATTTGTCGACGCGCCATGCTGACCAAGTCTCAAGTTGAGAGTCTTCC	723
Dp	1201	CCAAACGCGAAGCCCAATTTGTCGACGCGCCATGCTGACCAAGTCTCAAGTTGAGAGTCTTCC	1260
Qy	724	AGCGGGGTGACTCATATCATCCGCGAAGGCGACCATTCGGGAAGAAAGTATCTTATCCAGC	783
Dp	1261	AGCGGGGTGACTCATATCATCCGCGAAGGCGACCATTCGGGAAGAAAGTATCTTATCCAGC	1320
Qy	784	ACGGCGTGTGACGTGCTCACTTAAAGGGCAACAAGAGATGAAAGCTGTCCGATGGCTCT	843
Dp	1321	ACGGCGTGTGACGTGCTCACTTAAAGGGCAACAAGAGATGAAAGCTGTCCGATGGCTCT	1380
Qy	844	ACTTCGGGGAGATTCGCTGCTCAACCCGGGGCGCGCGACAGGCGAGGTGCGGGCTGACA	903
Dp	1381	ACTTCGGGGAGATTCGCTGCTCAACCCGGGGCGCGCGACAGGCGAGGTGCGGGCTGACA	1440
Qy	904	CTTACTGCGCGCTCTTATTCGCTGAGCGTGAACAATTCAACAGAGTCTGTGAGAGATACC	963
Dp	1441	CTTACTGCGCGCTCTTATTCGCTGAGCGTGAACAATTCAACAGAGTCTGTGAGAGATACC	1500
Qy	964	CCATGATGCGGCGCGCTTTCGAGACGGGTGCATTCGACCGCTGTGATCCGATCGGCANAGA	1023
Dp	1501	CCATGATGCGGCGCGCTTTCGAGACGGGTGCATTCGACCGCTGTGATCCGATCGGCANAGA	1560
Qy	1024	AGAAATTCATCTCTCTGCAACAAGGTGACGATGACCTTCAACTCGGCGGTATTTCAACAACC	1083
Dp	1561	AGAAATTCATCTCTCTGCAACAAGGTGACGATGACCTTCAACTCGGCGGTATTTCAACAACC	1620
Qy	1084	AGAGGAAACGCGCATCATCCAGAGAAATCTCTCAAGTACGACCGCGAGATGTGTCAACGAGCGC	1143
Dp	1621	AGAGGAAACGCGCATCATCCAGAGAAATCTCTCAAGTACGACCGCGAGATGTGTCAACGAGCGC	1680
Qy	1144	AGCTGGGCTCAGCGCGTGGGCGCTTCTTCCGCGCGCGCGCGCGCGCGCGCA-GTCACTCTCG	1202
Dp	1681	AGCTGGGCTCAGCGCGTGGGCGCTTCTTCCGCGCGCGCGCGCGCGCGCGCGCAAGTCACTTCC	1739
Qy	1203	GCCATTCGCCACGCTGACGAGGCGGCGCGCATGAGCTTCTGCGCGCAG-1250	
Dp	1740	GCCATTCGCCACGCTGACGAGGCGGCGCGCATGAGCTTCTGCGCGCAG-1787	

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RESULT 5
US-10-753-991-40
; sequence 40, Application US/10753991
; Publication No. US20040142421A1
; GENERAL INFORMATION:

```

APPLICANT: Kandel, Eric R.
 APPLICANT: Santoro, Bina
 APPLICANT: Bartsch, Dusan
 APPLICANT: Siegelbaum, Steven
 APPLICANT: Tibbs, Gareth
 APPLICANT: Grant, Seth
 TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
 TITLE OF INVENTION: Uses Thereof
 FILE REFERENCE: 0575/54806-A
 CURRENT APPLICATION NUMBER: US/10/753,991
 CURRENT FILING DATE: 2004-01-07
 EARLIER APPLICATION NUMBER: 09/086,436
 EARLIER FILING DATE: 1998-05-28
 NUMBER OF SEQ ID NOS: 67
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 40
 LENGTH: 1792
 TYPE: DNA
 ORGANISM: Human
 US-10-753-991-40

Query Match 89.9%; Score 1207; DB 19; Length 1792;
 Best Local Similarity 99.0%; Pred. No. 8.7e-311;
 Matches 1235; Conservative 0; Mismatches 11; Indels 2; Gaps 2;

QY 4 TGGGCTTACCAAGATCTCTAGGCTCTGCGGCTGCGCTCTGCAAGGCTGATCCGCT 63
 DB 541 TGGGCTTACCAAGATCTCTAGGCTCTGCGGCTGCGCTCTGCAAGGCTGATCCGCT 600
 QY 64 ACATCCATCAGTGGAGAGATCTTCCATGACCTTATGACCTGAGCGCGGTGATGA 123
 DB 601 ACATCCATCAGTGGAGAGATCTTCCATGACCTTATGACCTGAGCGCGGTGATGA 660
 QY 124 GGATCTGCAATCTATCATGACGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 183
 DB 661 GGATCTGCAATCTATCATGACGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 720
 QY 184 TCCGTGAGCCCATGCTGAGGAGATCTCCGCGCAATGCTGAGGTGCTGCTGCTGCTGCT 243
 DB 721 TCCGTGAGCCCATGCTGAGGAGATCTCCGCGCAATGCTGAGGTGCTGCTGCTGCTGCT 780
 QY 244 TGAACCACTCGTGAAGTGAATCTGATCTCTTCCATGACCTTATGACCTGAGCGCGGT 303
 DB 781 TGAACCACTCGTGAAGTGAATCTGATCTCTTCCATGACCTTATGACCTGAGCGCGGT 840
 QY 304 TGTGATCGGCTGAGCG 363
 DB 841 TGTGATCGGCTGAGCG 900
 QY 364 TCAACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 423
 DB 901 TCAACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 960
 QY 424 TCCAGTGGCTGAGTCTCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 483
 DB 961 TCCAGTGGCTGAGTCTCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020
 QY 484 ACATGCTCTTCCACAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 543
 DB 1021 ACATGCTCTTCCACAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1080
 QY 544 ACCGTTACAGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 603
 DB 1081 ACCGTTACAGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1140
 QY 604 TGGCGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 663
 DB 1141 TGGCGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1200
 QY 664 CCAAGCGGAGCGCACTTCTGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 723
 DB 1201 CCAAGCGGAGCGCACTTCTGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1260

QY 724 AGCGGAGTGAATCATCATCTCCGAGGAGCAACATCGGAGAGAGATGATCTCATCCAGC 783
 DB 1261 AGCGGAGTGAATCATCATCTCCGAGGAGCAACATCGGAGAGAGATGATCTCATCCAGC 1320
 QY 784 AGCGGAGTGAATCATCATCTCCGAGGAGCAACATCGGAGAGAGATGATCTCATCCAGC 843
 DB 1321 AGCGGAGTGAATCATCATCTCCGAGGAGCAACATCGGAGAGAGATGATCTCATCCAGC 1380
 QY 844 ACTTCGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 903
 DB 1381 ACTTCGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1440
 QY 904 CTTACTGCGCTCTATTCCTGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 963
 DB 1441 CTTACTGCGCTCTATTCCTGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1500
 QY 964 CCAATGATGCGCGCGCGCTTGAAGCGGTGATGATGATGATGATGATGATGATGATGAT 1023
 DB 1501 CCAATGATGCGCGCGCGCTTGAAGCGGTGATGATGATGATGATGATGATGATGATGAT 1560
 QY 1024 AGAATTCATCTCTCTGAGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1083
 DB 1561 AGAATTCATCTCTCTGAGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1620
 QY 1084 AGGAGAACGCGATCATCATCAGAGATGCTCAAGTACGACCGCGAGATGATGATGATGAT 1143
 DB 1621 AGGAGAACGCGATCATCATCAGAGATGCTCAAGTACGACCGCGAGATGATGATGATGAT 1680
 QY 1144 AGCTGGGCTGAGCGCGCGCTTCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1202
 DB 1681 AGCTGGGCTGAGCGCGCGCTTCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1739
 QY 1203 GCAATGCGCAGCGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1250
 DB 1740 GCAATGCGCAGCGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1787

RESULT 6

US-10-384-107-11
 Sequence 11, Application US/10384107
 Publication No. US20050003477A1
 GENERAL INFORMATION:
 APPLICANT: Kandel, Eric R.
 APPLICANT: The Trustees of Columbia University
 APPLICANT: Santoro, Bina
 APPLICANT: Bartsch, Dusan
 APPLICANT: Siegelbaum, Steven
 APPLICANT: Tibbs, Gareth
 APPLICANT: Grant, Seth
 TITLE OF INVENTION: Pacemaker Channel Proteins and Uses Thereof
 FILE REFERENCE: 0575/54806-B
 CURRENT APPLICATION NUMBER: US/10/384,107
 CURRENT FILING DATE: 2003-03-06
 PRIOR APPLICATION NUMBER: 08/997,685
 PRIOR FILING DATE: 1997-12-23
 NUMBER OF SEQ ID NOS: 60
 SOFTWARE: PatentIn version 3.1
 SEQ ID NO 11
 LENGTH: 1790
 TYPE: DNA
 ORGANISM: human;
 US-10-384-107-11

Query Match 89.0%; Score 1194.4; DB 21; Length 1790;
 Best Local Similarity 98.9%; Pred. No. 2e-307;
 Matches 1234; Conservative 0; Mismatches 11; Indels 3; Gaps 3;

QY 4 TGGGCTTACCAAGATCTCTAGGCTCTGCGGCTGCGGCTCTGCAAGGCTGATCCGCT 63
 DB 540 TGGGCTTACCAAGATCTCTAGGCTCTGCGGCTGCGGCTCTGCAAGGCTGATCCGCT 599
 QY 64 ACATCCATCAGTGGAGAGATCTTCCATGACCTTATGACCTGAGCGCGGTGATGA 123

D	600	ACATCATCAGTGGGAGGAGATCTTCCATATGACCTATGACCTGGCCAGCGGGTATGA	659
O	124	GGATCTGCAGATCTCTATCAGACATGATATGATCTGTCTGCGCATGCGGAGCGGTGGCTTGCAGT	183
D	660	GGATCTGCAGATCTCTATCAGACATGATATGATCTGTCTGCGCATGCGGAGCGGTGGCTTGCAGT	719
O	184	TCCCTGTCGCCATNGCTGCGAGGACCTTCCGCGGAACTGCTGCGGTGCTCATCAATGAGCATG	243
D	720	TCTGTGTCCTATGCTGCGAGGACTTCCGCGGAACTGCTGCGGTGCTCATCAATGAGCATG	779
O	244	TGAACCATCTGTGAGATGAATCTGTACTCTTGCATCTTTCAAGGCGCATGAGCATCATG	303
D	780	TGAACCATCTGTGAGATGAATCTGTACTCTTGCATCTTTCAAGGCGCATGAGCATCATG	839
O	304	TGTGCACTGGGATACGGCGCGGACGGCGCCGAGAGCATGACGACATCTGGCTGACCATG	363
D	840	TGTGCACTGGGATACGGCGCGGACGGCGCCGAGAGCATGACGACATCTGGCTGACCATG	899
O	364	TCAGCATGATTTGTGGGTGCGACCTGTGTACGCCATGTTTCAATCGAGCCAAGCCATGCGCTCA	423
D	900	TCAGCATGATTTGTGGGTGCGACCTGTGTACGCCATGTTTCAATCGAGCCAAGCCATGCGCTCA	959
O	424	TCGAGTCGATGGACTCTCGCGCGCGCAGATACAGAGAGAAATTCACAGCATGATGAGCAGT	483
D	960	TCGAGTCGATGGACTCTCGCGCGCGCAGATACAGAGAGAAATTCACAGCATGATGAGCAGT	1019
O	484	ACATGTCCTTCCACAGATGCGCAGCTGACCTTCCGCGCAAGAAAGATTCACGATCTATGAGC	543
D	1020	ACATGTCCTTCCACAGATGCGCAGCTGACCTTCCGCGCAAGAAAGATTCACGATCTATGAGC	1079
O	544	ACCGTTACCAAGGGCAGATGTTTGAAGAGGACAGATCTCTGGCGAGCTCAAGGGCGCC	603
D	1080	ACCGTTACCAAGGGCAGATGTTTGAAGAGGACAGATCTCTGGCGAGCTCAAGGGCGCC	1139
O	604	TGCGGAGAGAGATCTGTCAATCTCACTGCGGAAAGCTGTGTGCTCATATGCGCTGTG	663
D	1140	TGCGGAGAGAGATCTGTCAATCTCACTGCGGAAAGCTGTGTGCTCATATGCGCTGTG	1199
O	664	CCAAAGCCGACCCCACTTCTGTCAAGGCCATGCTGATCCAAAGCTCAAGTTGAGGTCTTCC	723
D	1200	CCAAAGCCGACCCCACTTCTGTGTCAAGGCCATGCTGATCCAAAGCTCAAGTTGAGGTCTTCC	1259
O	724	AGCGGGGTGATCATCATATCCGCGAAGGCATCTGGGAGAGATGATCTTCAATCCAGC	783
D	1260	AGCGGGGTGATCATCATATCCGCGAAGGCATCTGGGAGAGATGATCTTCAATCCAGC	1319
O	784	ACGGCTGTGTCAAGCTGTCTCATTAAGGCAACAGAGATGAAGCTGTTCGATGGCTCT	843
D	1320	ACGGCTGTGTCAAGCTGTCTCATTAAGGCAACAGAGATGAAGCTGTTCGATGGCTCT	1379
O	844	ACTTCCGGGAGATCTGCTGCTGCTTACCAGGGGGCGCGCAAGGAGAGCTGCGGGCTGACA	903
D	1380	ACTTCCGGGAGATCTGCTGCTGCTTACCAGGGGGCGCGCAAGGAGAGCTGCGGGCTGACA	1438
O	904	CCATACGCGGCTCTATTTGCTGTGAGCTGTGACAACTTCAACGAGTCTGAGAGATGAC	963
D	1439	CCATACGCGGCTCTATTTGCTGTGAGCTGTGACAACTTCAACGAGTCTGAGAGATGAC	1498
O	964	CCATATGCGGGCGGCTTGTGAGAGCGGTGSCATTCGACCGCTGTGACCGGATCGGCAAGA	1023
D	1499	CCATATGCGGGCGGCTTGTGAGAGCGGTGSCATTCGACCGCTGTGACCGGATCGGCAAGA	1558
O	1024	AGAAATTCATCTCTCTGCAACAGGTGACGATGACCTTCAACTGCGGGGTATTCAAAGC	1083
D	1559	AGAAATTCATCTCTCTGCAACAGGTGACGATGACCTTCAACTGCGGGGTATTCAAAGC	1618
O	1084	AGGAGAAAGCATATCATCAGAGATGTGTCAAGTACGACCGGAGATGTGTGACGAGCGG	1143
D	1619	AGGAGAAAGCATATCATCAGAGATGTGTCAAGTACGACCGGAGATGTGTGACGAGAGCGG	1678
O	1144	AGCTGAGCTCAGGCGGTGAGGCTTTTCCGCGCGCGCGCGCGCGGCA-GTCACTCG	1202
D	1679	AGCTGAGG-TCAGGCGGTGAGGCTTTTCCGCGCGCGCGCGCGCGCGGCAAGGTCACTTGG	1737

QY	1203	GCATTCGCGCAGCGCTGCGAGCGCGCGGCATGAGCTTCTGCCCGAG	1250
DB	1738	GCATTCGCGCAGCGCTGCGAGCGCGCGGCATGAGCTTCTGCCCGAG	1785

RESULT 7
US-10-292-798-2011

Sequence 2011, Application US/10292798
Publication No. US20030235833A1
GENERAL INFORMATION:

APPLICANT: SUMA, MAKIKO
APPLICANT: ASAI, KIYOSHI
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: ABEYARATNE, KIRLOYUKI
TITLE OF INVENTION: GANGLIOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 084335/166
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: US/10/292,798
PRIOR FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: JP 2001-246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2070
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2011
LENGTH: 2125
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE: LOCATION: source
FEATURE: LOCATION: (1)..(2125)
FEATURE: NAME/KEY: CDS
FEATURE: LOCATION: (201)..(1724)
FEATURE: NAME/KEY: CDS
FEATURE: LOCATION: (1767)..(1925)
US-10-292-798-2011

Query Match 88.8%; Score 1191.6; DB 17; Length 2125;
Best Local Similarity 95.2%; Freq. No. 1.1e-306;
Matches 1276; Conservative 7; Mismatches 47; Indels 10; Gaps 5;

QY	4	TGCGGTTCCACCAAGTCTCTGAGCCTCTCTGCGGCTGCTGCGGCTTCTGACGCTGATCCGCT	63
DB	688	TGCGGTTCCACCAAGTCTCTGAGCCTCTCTGCGGCTGCTGCGGCTTCTGACGCTGATCCGCT	747
QY	64	ACATTCATCACTGAGGAGAGAGATCTTCCACATGACCTTATGACCTTGCGCAGCGGCTGATGA	123
DB	748	ACATTCACCACTGAGGAGAGAGATCTTCCACATGACCTTATGACCTTGCGCAGCGGCTGATGAC	807
QY	124	GGATTCGCAATCTCATCAGCATGATGATGCTGCTCTGCACTGCGACGCGCTGCTGAGT	183
DB	808	GGTTCGCAACTCATCAGTATGATGATGCTGCTGCTGCACTGCGAGATGAGCTGCTGAGT	867
QY	184	TCTGTGATCCCATGCTGAGAGACTTCCGCGCACTGCTGGGATCTTCATCAATGGCATGG	243
DB	868	TCTGTGTGACCATGCTGAGAGACTTCCGCGCACTGCTGGGATCTTCATCAATGGCATGG	927
QY	244	TGAACCACTGCTGAGAGTGAATCTGTAATCTTGGACTCTTCAAGGCCATGAGCCACATGC	303
DB	928	TGAACCACTGCTGAGAGTGAATCTGTAATCTTGGACTCTTCAAGGCCATGAGCCACATGC	987
QY	304	TGTGATCGGCTGACGCGCGAGCGCGCGGAGACATGACGAGATCTGGCTGACATGC	363
DB	988	TGTGATCGGCTGAGAGCGCGCGAGCGCGCGGAGACATGACGAGATCTGGCTGACATGC	1047
QY	364	TCAGCATATTTGTGGGTGCGACCTGCTGACGCGCATGTTTATGTGGCGCAGCCCATGCGCTCA	423
DB	1048	TCAGCATATTTGTGATGATGACACCTGCTGACGCGCATGTTTATGTGGCGCAGCCCATGCGCTCA	1107

OY	424	TCGACGCTGGACATCTTCGCGCGGCACGATACAGAGAAATCAAGCAGGTGGAGCACT	483
Db	1108	TCGACGCTGGACATCTTCGCGCGGCACATAC--AGAAATCAAGCAGGTGGAGCACT	116
OY	484	ACATGTCTTCCACAAAGCTGCAGCTGACTTCCGACAGAAATCCACGACTACTATGAC	543
Db	1165	ACATGTCTTCCACAAAGCTGCAGCTGACTTCCGACAGAAATCCACGACTACTATGAC	122
OY	544	ACCGTTACGAGGCAAGATGTTTGAAGAGACAGCATCTGTGGGCACTCAACGGGCCCC	603
Db	1225	ACCGTTACGAGGCAAGATGTTTGAAGAGACAGCATCTGTGGGCACTCAACGGGCCCC	128
OY	604	TGCGGGAGAGATTCGTCAACTTCATCTGCCGGAACCTGTGGCCCTCAATGCCGCTGTTC	663
Db	1285	TGCGGGAGAGATTCGTCAACTTCATCTGCCGGAACCTGTGGCCCTCAATGCCGCTGTTC	134
OY	664	CCAAAGCGGACCCCAACTTTCGTCAAGGCGCATCTGATCCAAAGTCAAGTTCGAGCTTCC	723
Db	1345	CCAAATGCTGACCCCAACTTTCGTCAAGGCGCATCTGATCCAAAGTTCGAGCTTTC	140
OY	724	AGCGGGGTGACTACATCATTCGCGCAAGGCACTGGGAAAGATGTATCTTATCCAGC	783
Db	1405	AGCGGGGTGACTACCTCATCCGCGAAGGACCATCG--GAAATGTATCTTATCTTACGC	1461
OY	784	ACGGGTGTGAGCGGTGCTCATAGGGGCAACAAGAAATGAAGTGTCCATGGCTCT	843
Db	1462	ACGGGTGTGAGCGGTGCTCATAGGGGCAACAAGAAATGAAGTGTCCATGGCTCT	1521
OY	844	ACTTCGGGAGATCTGCTGTCTCACCCGGGGCCGCGACGGCGAGCGTGCAGGCTGACA	903
Db	1522	ACTTCGGAGAAATCTGCTGTCTCACCCGGGGCCACCGATGGCGAGCGTGGCGGCAACA	1581
OY	904	CTTACTGCGCCTTATTTCGCTGAGCGTGCACAACTTCAACGAGGTGTGAGAGATACC	963
Db	1582	CTTATTGCGCGCTCTTTCGCTGAGCGTGCACAACTTCAACGAGGTGTGAGAGATACC	1641
OY	964	CCATGATGCGGGGCGCCTTTCGACAGCGTGGCCATTCGACCGGCTGACCCGCAATCGGCAGA	1022
Db	1642	CCATGATGCGGGCGCCTTTCGAGAGAGTGGCCATTCGACCGGCTGACCCGCAATCGGCAGA	1701
OY	1024	AGAAATTCATCTCTCTGACAAAGGTGCAGCATGACCTCAATCGGCGCTATTTCACAACC	1083
Db	1702	AGAAATTCATCTCTCTGACAAAGGTGCAGCATGACCTTAACTCGGCGCTATTTCACAACC	1761
OY	1084	AGAGAAAGCATATCCAGGAGATCGTCAAGTTCGACCGGAGATGTGTGACGAGCGG	1143
Db	1762	AGTAGAAAGCATATCCAGGAGATCGTCAAGTTCGACCGGAGATGTGTGACGAGCGG	1821
OY	1144	AGCTGGGCTCAGCGGTGGGCTCTTCCGCGCGCGCGCGCGCGCGCACTGACTTCGG	1203
Db	1822	AGCTGGG-TCAGCGCTGGGCTCTTCCGCGCGCGCGCGCGCGCGCA-CTCACTTCGG	1878
OY	1204	CCATTCGACCACTGACGAGCGCGCGCATGAGCTTTCGCGCGCA-GTGGCGGGCGCGC	1262
Db	1879	CCATTCGACCACTGACGAGCGCGCGCATGAGCTTTCGCGCGCAAGTGGCGGGCGCGC	1938
OY	1263	TCGTGGGCGCTGCGCTCGGCTTCGCGCGCGCTTCGTGCGGCGYNDYHCCCGGAGGCGG	1322
Db	1939	TCGTGGGCGCGCTGCGCTCGGCTTCGCGCGCGCTTCGTGCGGCGCGCGCGCGCGCGG	1998
OY	1323	CACCTGAGCCNCTCAACC 1342	
Db	1999	CACCTGAGCGCCTCAACC 2018	

RESULT 8
US-10-017-161-2369
: Sequence 2369, Application US/10017161
: Publication No. US80030143668A1
: GENERAL INFORMATION:
: APPLICANT: SUMA, MAKIKO
: APPLICANT: ASAI, KIYOSHI
: APPLICANT: AKIYAMA, YUTAKA

1 APPLICANT: ABRUPTANI, HIROYUKI
 2 TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
 3 FILE REFERENCE: 084335/0152
 4 CURRENT APPLICATION NUMBER: US/10/017,161
 5 CURRENT FILING DATE: 2002-12-18
 6 PRIOR APPLICATION NUMBER: JP 2001/246789
 7 PRIOR FILING DATE: 2001-06-18
 8 NUMBER OF SEQ ID NOS: 2430
 9 SOFTWARE: Patentin Ver. 2.1
 10 SEQ ID NO 2369

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? LOCATION: (1)..(1966)
? FEATURE:
? NAME/KEY: CDS
? LOCATION: (201)..(1766)
? FEATURE:
? NAME/KEY: modified_base
? LOCATION: (7)..(106)
? OTHER INFORMATION: a, t, c, g, unknown or other
? FEATURE:
? NAME/KEY: modified_base
? LOCATION: (139)
? OTHER INFORMATION: a, t, c, g, unknown or other
? FEATURE:
? NAME/KEY: modified_base
? LOCATION: (1915)..(1966)
? OTHER INFORMATION: a, t, c, g, unknown or other
? JS-10-017-161-2369

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Query Match	82.7%	Score 1109.2;	DB 15;	Length 1866;
Best Local Similarity	95.8%;	Pred. No. 9.1e-285;		
Matches 1184; Conservative	0;	Mismatches 43;	Indels 9;	Gaps 4

QY	1165	ACATGCTCTTCCACAAGCTGCGAGCTGATCTTCCGCAAGAAAGATTCACAGACTATACGAGC	543
Db	688	TGGCTTCACCAAGATCTCTAGGCTCTCGCGGGGCTGCGGCTCTCAAGCCGATCCGGT	63
QY	484	ACATGCTCTTCCACAAGCTGCGAGCTGATCTTCCGCAAGAAAGATTCACAGACTATACGAGC	543
Db	688	TGGCTTCACCAAGATCTCTAGGCTCTCGCGGGGCTGCGGCTCTCAAGCCGATCCGGT	747
QY	124	GGATTCGCATCTCATAGCATGATGATGCTGCTGCTGCTGCACCTGGGACGGCTGCGTCACT	183
Db	808	GGATTCGCATCTCATAGCATGATGATGCTGCTGCTGCTGCACCTGGGATGGCTGCTGCACT	867
QY	184	TCTGTGTGCCATCTGTCGACGAGCTTTCGCGGCACTGCTGGGTGTCATCATGGCATGG	243
Db	868	TCTGTGTGGCCATGCTGTCGACGAGCTTTCGCGGCACTGCTGGGTGTCATCATGGCATGG	927
QY	244	TGAACCACTGTTGGAGTGAACCTGTAACCTCTTGGACCTTCAAGGCCATGAGCCACATGC	303
Db	928	TGAACCACTGTTGGAGTGAACCTGTAACCTCTTGGACCTTCAAGGCCATGAGCCACATGC	987
QY	304	TGTGATCGGGTACGCGCGGCAAGCGCGCCGAGACATGACGGAATCTGCTGACCATGC	363
Db	988	TGTGATCGGGTATGCGCGGCAAGCGCGCCGAGACATGACGGAATCTGCTGACCATGC	1047
QY	364	TCAGCATGATTTGTGGGTGTCACCTGTCTAGCGCATGTTCAATGGGCAAGGCCATGCGCTTCA	423
Db	1048	TCAGCATGATTTGTGGGTGTCACCTGTCTAGCGCATGTTCAATGGGCAAGGCCATGCGCTTCA	1107
QY	424	TCCAGTGCCTGGAATCTCGCGGCGCCAGTACAGAGAAAGTACAGCAGGTGAGCAGT	483
Db	1108	TCCAGTGCCTGGAATCTCGCGGCGCCAGTACAGAGAAAGTACAGCAGGTGAGCAGT	1167
QY	484	ACATGCTCTTCCACAAGCTGCGAGCTGATCTTCCGCAAGAAAGATTCACAGACTATACGAGC	543
Db	1165	ACATGCTCTTCCACAAGCTGCGAGCTGATCTTCCGCAAGAAAGATTCACAGACTATACGAGC	1224

Thu Sep 1 12:59:36 2005

US-09-640-582a-1.rnpb

Page 8

OY	544	CCGGTACACAGGGCAAGATGTTTGAACGAGACAGCATCTGGGCGAGCTCAACGGGCCCC	603
Db	1225	ACCGTTACCAAGGCAAGATGTTTGCACGAGACAGCATCTGGGCGAGCTCAACGGGCCCC	1288
OY	604	TGGCGGAGAGATTCGTCACTTCAACCTGCGGGAACCTGTGGCTCCCAATGCGCTGTGCG	663
Db	1285	TGGCGGAGAGATTTCTCACTTCAACTGCGGGAACCTGTGACTTCAATGCGCTGTGCG	1344
OY	664	CCAAAGCCGACCCCAACTTTCGACGGGCAAGCTBAACCAAGGTCAAGTTTCAGAGTCTTCG	723
Db	1345	CCAAAGCTGACCCCAACTTTCGACGGGCAAGCTBAACCAAGTTTCAGAGTCTTCG	1400
OY	724	AGCGGGGTGACATCAATTCATCCGCGGAGGACACATGGGGAAGAAATGTAATCTTCAACGAG	783
Db	1405	AGCGGGGTGACATCACTTCATCCGCGGAGGACACATGCG---GAAATGTATCTTCAATCCAGC	1462
OY	784	AAGGGGTGTAGAGGTGCTCACTAAGAGGGAACAAAGAAATGAAGTGTGCCATGGCTCTCT	843
Db	1462	AAGGGGTGTAGAGGTGCTCGTTAAGGGAACAAAGAAATGAAGTGTTCATATGGCTCTCT	1521
OY	844	ACTTTCGGGAGATCTGCTCTGCTCAACCCGGGGCTCGCGCACGGCGAGCTGTGGGCTGAC	903
Db	1522	ACTTTCGGGAGATCTGCTCTGCTCAACCCGGGGCACCGCATGGCGAGTGTGCGGGGCAAC	1581
OY	904	CGTACTGCGCGCTCTTAATTGCTGAGCGGTGAGCACTTCAACGAGGTGCTGAGAGAGTACC	963
Db	1582	CGTACTGCGCGCTCTCTTGTGCTGAGCGGTGAGCAACTTCAACGAGGTGCTGAGAGAGTACC	1641
OY	964	CCATGATGCGGCGCGGCTTTCGAGACGGGTGGCCATGACCGGCTGTGACCGCATCGGCAAGA	1023
Db	1642	CCATGATGCGGCGCGCTTTCGAGACGGGTGGCCATGACCGCTGTGACCGCATCGGCAAGA	1701
OY	1024	AGAAATTCATCTCTCTGTGCAACAGGTGTGACGATGACTCAACTCGGGCTGTAATTCACCAACC	1083
Db	1702	AGAAATTCATCTCTCTGTGCAACAGGTGTGACGACGACTTAACTCGGGCTGTAATTCACCAACC	1761
OY	1084	AGAGAAACGCCATCATCTCCAGAGGATCGTCAAGTACGACCGCGAGATGTGTGACGACGAGCGC	1143
Db	1762	AGTAAAGAGCCATCATCTCCAGAGGATCGTCAAGTACGACCGCGAGATGTGTGACGACGAGCGC	1821
OY	1144	AGCTGGGCTCAAGCGAGTGGGCTCTTCTTCGCGCGCGCGCGCGCGCGCGAGTCACTTCGG	1203
Db	1822	AGCTGGG--TGGCGCGCTGGGGCTCTTCTTCGCGCGCGCGCGCGCGCGAG--GTCACTTCGG	1878
OY	1204	CCATGCGCACGCTGTGACGACGCGCGCGCGCATAGGCT 1239	
Db	1879	CCATGCGCACGCTGTGACGACGCGCGCGCGCATATAGGCT 1914	

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RESULT 9
US-10-067-457-6
: Sequence 6, Application US/10067457
: Publication No. US20030082513A1
: GENERAL INFORMATION:
: APPLICANT: Aventis Pharma Deutschland GmbH
: TITLE OF INVENTION: Process for identifying substances which modulate the
: TITLE OF INVENTION: activity of hyperpolarization-activated cation channels
: FILE REFERENCE: AVE D-2000/A006
: CURRENT APPLICATION NUMBER: US/10/067,457
: CURRENT FILING DATE: 2002-04-09
: PRIOR APPLICATION NUMBER: US/09/779,587
: PRIOR FILING DATE: 2001-02-09
: NUMBER OF SEQ ID NOS: 10
: SOFTWARE: PatentIn Ver. 2.1
: SEQ ID NO 6
: LENGTH: 3102
: TYPE: DNA
: ORGANISM: Murinae gen. sp.
US-10-067-457-6

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	Score	DB	Length
Query Match	78.1%;	1048.6;	3102;
Best Local Similarity	87.6%;	Pred. No. 1.3e-268;	
Matches 1173; Conservative	6;	Mismatches 156;	Indels 4; Gaps 3

OY	1	TGGCGCTTCAACAAGATCTCTAGACCCCTGGAGGCTGGGCGCTCTCAACGGCTATCCGCT	63
Db	931	TGGCTTCAACAAGATCTCTAGCTGTGGCGCTGCTGGCGCTATCAACGGCTATCCGAT	990
OY	64	ACATTCATTCAGTGGAGAGAGATCTTCCACATATGACCTATGACCTGGGCGAGCGGTATGA	123
Db	991	ATATCAACCAAGTGGAGAGATTTTTCACATATGACCTATGACCTGGGCGAGCGGTATGAC	1050
OY	124	GGATCTGCAGATCTCATCAGCATGATATGTCTGCTCTGCGCATCTGGGATGGCTGCTGCATG	183
Db	1051	GCATCTGTATACCTGATCAGCATATGATATGTCTACTGCTCTGCGCATCTGGGAGCGGTGCTGCATG	1110
OY	184	TCCTGTGGTCCCATGCTGCGAGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGACATGG	243
Db	1111	TCCTGTGGTCCCATGCTGCGAGACTTCCCGAGCGCATGCTGGGTGTCCATCAACAACATGG	1170
OY	244	TGAACCACTCGTGGAGTGAACCTGTATCTCTTTCGCACTCTTTCAAAGGCCATGAGCCACAATGC	303
Db	1171	TGAACCACTCGTGGAGTGAACCTGTATCTCTTTCGCGCTCTTTCAAAGGCCATGAGCCACAATGC	1230
OY	304	TGTGATCATCGGGTACGGCGCGGACGGCGCCGAGAGCATGACGAGCATCTGGCTGACATATGC	363
Db	1231	TGTGATCATCGGGTACGGCGCGGACGGCGCCGAGAGCATGACGAGCATCTGGCTGACATATGC	1290
OY	364	TCAGCATGATTTGTGGGTGGCCACCTGGCTAAGCCCAATGTTCATCTGGGCGACGCGCATCGCTCA	423
Db	1291	TCAGCATGATTTGTGGGTGGCCACCTGGCTAAGCCCAATGTTCATTTGGGCGACGCGCATCGCTCA	1350
OY	424	TTCCAGTGGCTGAGACTCTCTCGCGGGGCGGACAGTATACAGAGAGAAAGTATCAACAGTGGAGAGT	483
Db	1351	TTCCAGTGGCTGAGACTCTCTCGCGGGGCGGACAGTATACAGAGAGAAAGTATCAACAGTGGAGAGAT	1410
OY	484	ACATATCTCTTCCATACACTGCGACAGCTGATCTTCCGCGGAGAAATTCAGCATCTATATAGC	543
Db	1411	ACATATCTCTTCCATACACTGCGACAGCTGATCTTCCGCGGAGAAATTCAGCATCTATATAGC	1470
OY	544	ACCGTTTACAGAGGCGAAGATGTTTGAAGAGACAGCATCTCTGGGGAGCTCAACGGGCCCC	603
Db	1471	ACCGTTTACAGAGGAGAAATGTTTGAATGAGACAGCATCTCTTGGGGAACTCAACGGGCGAC	1530
OY	604	TGGCGGAGGAGATGTCMACTTCAACTGCCGGAAGCTGTGGCCCTCCATCCGCTGTATTCG	663
Db	1531	TGGCTGAGGAGATTTGTATTAATTCAACGCGGGAAGCTGTGGCCCTTCATATCCGCTGTATTCG	1590
OY	664	CCAAACGCGCGAACCCCAACTTTCGTCAACGAGCAATGTGTAACCAAGCTTCAAGTTCGAGTCTTCC	723
Db	1591	CCAAATGCAAGACCCCAACTTTCGTCAACGAGCAATGTGTAACCAAGCTTCAAAATTTGAGGTCCTTCC	1650
OY	724	AGCGGGGTGATCTATCATCATCGCGCAAGGACACATCGGGAAGAAAGATTTACTTCACTCCAGC	783
Db	1651	AGCTGTGAGATTTATCATCATCCGAGAGGGGACACATCGGGAAGAAAGATTTACTTCACTCCAGC	1710
OY	784	ACGCGCGTGTAGGATGCTCACTTAAAGGAGCAAAAGAGATGAAGCTGTCGATGGATGCTCT	843
Db	1711	ATGGGGTGTAGGATGCTCACTCAAGGAGCAAAAGAGATGAAGCTGTCGATGGATGCTCTCT	1770
OY	844	ACCTTGGGAGAGATCTGCGCTGCTACCCGGGGGCGCGCGCAAGGAGAGGTGTCGGGCTGACA	903
Db	1771	ATTTCGGGAGATTTGCTTGTCTCAACGAGGGGCGGCGCTTACGGCGAGGTGTCGAGCTGACA	1830
OY	904	CCATATCGCGGCTCTATTTGCGTGAAGCGTGAACATTTCAACAGAGTGTGAGAGAGATGAC	963
Db	1831	CTATCTGTGCGCTCTTACTCACTGAGTGTGAACATTTCAACAGAGTGTGAGAGATGAC	1890
OY	964	CCATATGATCGGCGCGCTTTCAGAGCGGTGGCCATCGACCGCTGACCGCATCTGGCAGAGA	1023
Db	1891	CCAATGATGCGGCGCGCTTTCAGACTGTGTGCTATTTGACCGGCTAGATGTGCAATGGCAGAGA	1950
OY	1024	AGAAATTCATCTCTTGCACAAAGGTGACAGATGACTCAACTCGGAGCGTATTTCAACAACC	1083
Db	1951	AGAACTCATCTTGTCTGCACAAAGGTTACAGATATCTCACTCACTGATGATGTTTCAACAACC	2010

QY 1084 AGAGAAAGCCATCATTCAGAGAGATTCGTCAATGACGACCGGAGATGCTGACGAGCCG 1143
DB 2011 AGAGAAATGCCATCATTCAGAGAGATTCGTCAATGACGACCGGAGATGCTGACGAGCCG 2070
QY 1144 AGCTGGGCTCAGGGCGGCTGCTCTTCCCGCGCGCGCGCGCGCGCGAGTCACTTCGG 1203
DB 2071 AGCTGGGCTCAGGGCGGCTGCTCTTCCCGCGCGCGCGCGCGCGAGTCACTTCGG 2127
QY 1204 CCATGCGCAGCTGTCAGAGGCGGCGCGCATGAGCTTTCGCGCGA-GTGGCGGCGCGCG 1262
DB 2128 CCATGCGCAGCTTACAGAGGCTGTCGCGCATGAGCTTTCGCGCGAGGTGGCGCGCGCG 2187
QY 1263 TCGTGGGCGCGCTGCGCGCTGCGCGCGCTGTCGCGCGCTGTCGCGCGCTGTCGCGCG 1322
DB 2188 TCGTGGGCGCGCTGCGCGCTGCGCGCGCTGTCGCGCGCTGTCGCGCGCTGTCGCGCG 2247
QY 1323 CACCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCG 1341
DB 2248 TGCCTCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCG 2266

RESULT 10

US-10-311-795-5
; Sequence 5, Application US/10311795
; Publication No. US2004003943A1
; GENERAL INFORMATION:
; APPLICANT: SmithKline Beecham plc
; TITLE OF INVENTION: New Use
; FILE REFERENCE: P32614
; CURRENT APPLICATION NUMBER: US/10/311,795
; CURRENT FILING DATE: 2002-12-19
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 5
; LENGTH: 4751
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-311-795-5

Query Match 69.1%; Score 927.2; DB 18; Length 4751;

Best Local Similarity 84.7%; Pred. No. 2,76-236;
Matches 1040; Conservative 0; Mismatches 188; Indels 0; Gaps 0;

QY 4 TGCGCTTACCAAGATCTGAGCTGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCT 63
DB 2126 TCGCTTACCAAGATCTGAGCTGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCTGCGCGCT 2185
QY 64 ACATCATCACTGAGGAGAGATCTTCCAGCATGACCTTGAACCTGCGCGCGCGCTGATGA 123
DB 2186 ATATTCACAGTGGAGAGATCTTCCAGCATGACCTTGAACCTGCGCGCGCGCTGATGA 2245
QY 124 GATTCGATCTATCATGACGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 183
DB 2246 GCATTCGATCTATCATGACGATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2305
QY 184 TCCGCGCGCGCATGCTGAGGAGATCTTCCCGCGCACTGCTGCTGCTGCTGCTGCTGCTGCT 243
DB 2306 TCCGCGCGCGCATGCTGAGGAGATCTTCCCGCGCACTGCTGCTGCTGCTGCTGCTGCTGCT 2365
QY 244 TGAACCACTGCTGAGGAGATCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 303
DB 2366 TGAACCACTGCTGAGGAGATCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2425
QY 304 TGTGCGATGCGGATGAGCG 363
DB 2426 TGTGCGATGCGGATGAGCG 2485
QY 364 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 423
DB 2486 TCAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2545
QY 424 TCCAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 483

DB 2546 TCCAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2605
QY 484 ACATGCTCTTCCCAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 543
DB 2606 ACATGCTCTTCCCAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2665
QY 544 ACCGTTACAGAGGCAAGATGTTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 603
DB 2666 ACCGTTACAGAGGCAAGATGTTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2725
QY 604 TCGCGGAGAGATGCTGCACTTCACTGCGGAAAGCTGCTGCTGCTGCTGCTGCTGCTGCT 663
DB 2726 TCGCGGAGAGATGCTGCACTTCACTGCGGAAAGCTGCTGCTGCTGCTGCTGCTGCTGCT 2785
QY 664 CCAAGCGCGAGCCCACTTGTGTCAGCGGCAAGTGAACAGCTCAAGTTCAGAGTTCCTCC 723
DB 2786 CCAAGCGCGAGCCCACTTGTGTCAGCGGCAAGTGAACAGCTCAAGTTCAGAGTTCCTCC 2845
QY 724 AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 783
DB 2846 AGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2905
QY 784 ACCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 843
DB 2906 ATGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2965
QY 844 ACTTGGGAGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 903
DB 2966 ACTTGGGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3025
QY 904 CCTACTGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 963
DB 3026 CCTACTGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3085
QY 964 CCATGATGCGCGCGCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1023
DB 3086 CCATGATGCGCGCGCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3145
QY 1024 AGAATTCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1083
DB 3146 AGAATTCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3205
QY 1084 AGAGAAAGCCATCATTCAGAGAGATTCGTCAATGACGACCGGAGATGCTGACGAGCCG 1143
DB 1144 AGCTGGGCTCAGGGCGGCTGCTCTTCCCGCGCGCGCGCGCGCGCGAGTCACTTCGG 1203
QY 3266 ACCGCTGCGAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3325
DB 1204 CCATTCGCGAGCTGCGAGAGGCGCGCG 1231
DB 3326 TGATTCAGGCACTGCGAGGCTGCGCG 3353

RESULT 11

US-10-067-457-4
; Sequence 4, Application US/10067457
; Publication No. US20030082513A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharma Deutschland GmbH
; TITLE OF INVENTION: Process for identifying substances which modulate the
; FILE REFERENCE: AVE D-2000/A006
; CURRENT APPLICATION NUMBER: US/10/067,457
; PRIOR APPLICATION NUMBER: 2002-04-09
; PRIOR FILING DATE: 2001-02-09
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 5065
; TYPE: DNA

QY 424 TCAGTCGCTGACTCTCTGCGGCGCCAGTACAGAGAGATCAAGCAGGTGAGCAGT 483
Db 2548 TCAGTCGCTGACTCTCTGCGGCGCCAGTACAGAGAGATCAAGCAGGTGAGCAGT 2607
QY 484 ACATGTCTTCCACAGCTGCGCAGTCTTCCGCGAGAGATCCACGACTATATGAGC 543
Db 2608 ACATGTCTTCCACAGCTGCGCAGTCTTCCGCGAGAGATCCACGACTATATGAGC 2667
QY 544 ACCGTTACAGAGAGATGTTTGAAGAGACAGATCTGGGAGAGTCAACGGGCCCC 603
Db 2668 ACCGTTACAGAGAGATGTTTGAAGAGACAGATCTGGGAGAGTCAACGGGCCCC 2727
QY 604 TGGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 663
Db 2728 TGGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 2787
QY 664 CCAAGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 723
Db 2788 CCAAGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 2847
QY 724 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 783
Db 2848 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 2907
QY 784 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 843
Db 2908 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 2967
QY 844 ACTTGGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 903
Db 2968 ACTTGGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 3027
QY 904 CCTTCTGCGGCTCTTATTCGCTGAGCGTGAACAATTAAAGAGTGTGAGAGATACC 963
Db 3028 CCTTCTGCGGCTCTTATTCGCTGAGCGTGAACAATTAAAGAGTGTGAGAGATACC 3087
QY 964 CCAATGATGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1023
Db 3088 CCAATGATGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 3147
QY 1024 AGAATTCATCTCTCTGAGCAAGGTGACAGATGACTCACTGCGGCTTATTAACAAC 1083
Db 3148 AGAATTCATCTCTCTGAGCAAGGTGACAGATGACTCACTGCGGCTTATTAACAAC 3207
QY 1084 AGAATTCATCTCTCTGAGCAAGGTGACAGATGACTCACTGCGGCTTATTAACAAC 1143
Db 3208 AGAATTCATCTCTCTGAGCAAGGTGACAGATGACTCACTGCGGCTTATTAACAAC 3267
QY 1144 AGTGGGCTCAGCGGCTGAGCGCTCTCTGCGGCGCGCGCGCGCGAGTCACTTCCG 1203
Db 3268 AGTGGGCTCAGCGGCTGAGCGCTCTCTGCGGCGCGCGCGCGCGAGTCACTTCCG 3327
QY 1204 CCATGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1263
Db 3328 CCATGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 3387
RESULT 13
US-09-086-436-32
; Sequence 32, Application US/09086436
; Publication No. US20030118988A1
; GENERAL INFORMATION:
; APPLICANT: Kandel, Eric R.
; APPLICANT: Santoro, Bina
; APPLICANT: Bartsch, Dusan
; APPLICANT: Siegelbaum, Steven
; APPLICANT: Tibbs, Gareth
; APPLICANT: Grant, Seth
; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 0575/54806-A
; CURRENT APPLICATION NUMBER: US/09/086, 436

; CURRENT FILING DATE: 1998-05-28
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
; LENGTH: 1512
; TYPE: DNA
; ORGANISM: Murine
US-09-086-436-32
Query Match 65.1%; Score 874.2; DB 10; Length 1512;
Best Local Similarity 88.9%; Pred. No. 2.8e-22;
Matches 945; Conservative 0; Mismatches 118; Indels 0; Gaps 0;
QY 4 TGGGCTTACCAAGATCTCAGCCTCTGCGGCTGCGGCTCTCAAGCCTGATCCGCT 63
Db 449 TGGGCTTACCAAGATCTCAGCCTCTGCGGCTGCGGCTCTCAAGCCTGATCCGCT 508
QY 64 ACATTCATCAGTGGAGAGATCTTCCACATGACCTATGACTTGGCCAGCGCGGTGATGA 123
Db 509 ATATCCACAGTGGAGAGATTTTCCACATGACCTATGACTTGGCCAGCGCGGTGATGA 568
QY 124 GATTCGATTCATCAGTATGATGCTGCTTCCACTGAGAGCGCTGCTGAGT 183
Db 569 GATTCGATTCATCAGTATGATGCTGCTTCCACTGAGAGCGCTGCTGAGT 628
QY 184 TCCGCTGAGGAGAGATCTCAGCCTCTGCGGCTGCGGCTCTCAAGCCTGATCCGCT 243
Db 629 TCCGCTGAGGAGAGATCTCAGCCTCTGCGGCTGCGGCTCTCAAGCCTGATCCGCT 688
QY 244 TGAACCACTGAGAGATGAACTGACTCTTCCACTTCAAGGCGCATGAGCCACATGC 303
Db 689 TGAACCACTGAGAGATGAACTGACTCTTCCACTTCAAGGCGCATGAGCCACATGC 748
QY 304 TGTGATCGGCTACGCGCGGAGCGCGCGGAGAGATGACGAGATCTGCTGACATGC 363
Db 749 TGTGATCGGCTACGCGCGGAGCGCGCGGAGAGATGACGAGATCTGCTGACATGC 808
QY 364 TCGAGATGATGAGGAGAGATGCTGAGCGGAGAGATGCTGAGCGGAGAGATGCTGAG 423
Db 809 TCGAGATGATGAGGAGAGATGCTGAGCGGAGAGATGCTGAGCGGAGAGATGCTGAG 868
QY 424 TCCAGTCTGAGACTCTCTGCGGCGCGGAGAGATGACGAGAGATGACGAGATGAC 483
Db 869 TCCAGTCTGAGACTCTCTGCGGCGCGGAGAGATGACGAGAGATGACGAGATGAC 928
QY 484 ACATGTCTTCCACAGCTGCGCAGTCTTCCGCGAGAGATCCACGACTATATGAGC 543
Db 929 ACATGTCTTCCACAGCTGCGCAGTCTTCCGCGAGAGATCCACGACTATATGAGC 988
QY 544 ACCGTTACAGAGAGATGTTTGAAGAGACAGATCTGGGAGAGTCAACGGGCCCC 603
Db 989 ACCGTTACAGAGAGATGTTTGAAGAGACAGATCTGGGAGAGTCAACGGGCCCC 1048
QY 604 TGGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 663
Db 1049 TGGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1108
QY 664 CCAAGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 723
Db 1109 CCAAGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1168
QY 724 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 783
Db 1169 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1228
QY 784 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 843
Db 1229 AGCGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1288
QY 844 ACTTGGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 903
Db 1289 ACTTGGGAGAGATGCTCACTTCACTGCGGAAAGCTGTGAGCTTCATGCGCTGTTG 1348

QY	904	CTCTATGCGGGCTCATTTCCGTGACACGTGGACCAATTGACGAGGTCTGGAGAGACTAC	963
Db	1339	CTTACTGTCGGCTCTACTCACTGAGTGTGGACAATTTACACAGGTCCTGGAGAGATTAC	1400
QY	964	CCATGATGCGGCGCCCTTCCGAGACGGTGGCCATGACCTCGCTGACACGGCATCGGCAGA	1022
Db	1409	CCATGATGCGGCGGTCCTTTTGAGACTGGGCTATTGACCGGGCTAATGACATGGCAGAGA	1466
QY	1024	AGAAATTCATCTCTCTGACCAAGGTGACGACATGACTCAACTC	1066
Db	1469	AGAACTCCACCTTGTGTGACCAAGGTTCAGCAGATCTCAGCTC	1511

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RESULT 14
US-10-753-991-32
; Sequence 32, Application US/10753991
; Publication No. US20040142421A1
; GENERAL INFORMATION:
; APPLICANT: Kandel, Eric R.
; APPLICANT: Santoro, Bina
; APPLICANT: Bartsch, Dusan
; APPLICANT: Siegelbaum, Steven
; APPLICANT: Tibbs, Gareth
; APPLICANT: Gratt, Seth
; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 0575/54806-A
; CURRENT APPLICATION NUMBER: US/10/753,991
; CURRENT FILING DATE: 2004-01-07
; EARLIER APPLICATION NUMBER: 09/086,436
; EARLIER FILING DATE: 1998-05-28
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
; LENGTH: 1512
; TYPE: DNA
; ORGANISM: Murine
US-10-753-991-32

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Query Match	65.1%	Score 874.2;	DB 19;	Length 1512;
Best Local Similarity	88.9%;	Pred. No. 2.8e-222;		
Matches 945; Conservative	0;	Mismatches 118;	Indels 0;	Gaps 0;

QY	4	TGGCGTTTCCAAAGATCTCTACGCTCTCGGGGCTGTGGGCTTTCAGCGCTGAATCCGT	63
Db	449	TGGGCTTACCAAGATCTCTAGCTGTGGCTGGGCTGTGGGCTATACAGGCTCATCCAGT	508
QY	64	ACATCCATCATGTGGAGAGAGATCTTCCACATGACCTATGACTTGGCCAGCGCGTGATGA	123
Db	509	AATATCCACCAAGGGGAGAGATTTTCCATATGACCTACCACTGGGCAATGTGAAGATATC	568
QY	124	GGATCTGCATCTCATTCAGCATGATATGCTGCTCTCTGCACATCGGAGCGAGCTCCCTGACAT	183
Db	569	GCATCTGTAACTTGATTCAGCATGATATCTCTCTCTGTCACATCGGAGCGGTTCTCTGCAGT	628
QY	184	TCTTGATGCGCAATGCTGCAGAGATTCCTCCGCGAACTGCTGGGGTGTCCATCATTTGGCATATG	243
Db	629	TCTTGATGCGCAATGCTGCAGAGATTCCTCCGCGAACTGCTGGGGTGTCCATCAACAATATG	688
QY	244	TGAACCACTCGGAGATGAATGTATCTCTGTGGCACTTTCAAGAGCCATGAGACCAATCC	303
Db	689	TGAACCACTCGGAGACGAGCTCTACTCTGTGGCTTTCAAGAGCCATGAGACCAATCC	748
QY	304	TGTGCATCGGGTACCGGCCGAGCGGCCCGAGAGCATGACGGAATCTGGCTGACCATGC	363
Db	749	TGTGCATCGGGTACCGGGCGAGCGGCCCGAGAGCATGACGAACATCTGGCTGACCATGC	808
QY	364	TCAGCATGATTTGTGGGTGCACCTGTGTACGCCATGTTCTTCGGCCACCGCCACTGTCCCTCA	423
Db	809	TCAGCATGATTCGTATGGCGCCACTGTGTATGCCATGTTCATTGGGCACTGCCACTGTGCCTCA	868
QY	424	TCAGTTCGTGTGACTCTCGCGGCGCCATGTACAGAGAGAATGACAAAGCAGGTGTGAGACAT	483

Db	869	TCGAGTCCCGGAATTGCTCAACGGGCGCCAAATACCGAGGAAGTTCACACAGTATGAGCAAT	928
Oy	484	ACATGATCCCTTCCCAACATGCGACAGCTACTTCCGCGCAAGAGATTCACGACTATGAGC	543
Db	929	ACATGATCCCTTCCCAACACTGCCGCTGACTTTCGCGCAAGAGATTCACGATTACTATGAC	988
Oy	544	ACCGTTTACCGAGGCGAAGATGTTTGAACGAGACAGCATCTCGGGCGAGCTCAACCGAGCCC	603
Db	989	ACCGTTTACCAAGGGAAGATGTCTGTATGAGACAGCATCTTTGGGGAATCAACCGAGCCAC	1048
Oy	604	TGCGGAGAGAGATCGTCAACTTCAATCGCGGAAAGTGTGGGCTCCATGCGCTGTGTG	663
Db	1049	TGCGTGAAGAGATGTGTAACTTCAATCGCGGAAAGTGTGTGCTTCATGCGCTGTGTG	1108
Oy	664	CCAAACGCGAAGCCCAACTTGTGTCAACGCGCAATGCTGACCAAGTCAATGTGAGGCTTTC	723
Db	1109	CCAAATGACAGCCCAATTTGCTGTACAGCATGCTGACAAAGCTCAATTTGAGGCTTTC	1168
Oy	724	AGCCGGGTGACTATATATATCCGCGAAGGCACCATCGGAAAGAAATGTACTTATCCAGC	783
Db	1169	AGCCTGAGATTAATATATATCCGAGAGGAGAACCATCGGAAAGAAATGTACTTATCCAGC	1228
Oy	784	ACGGCGTGTACGCTGCTCACTTAAGGGCAACAGAGATGAAGCTGTCCGATGCTTCT	843
Db	1229	ATGAGGATGTGATGAGTGTCTACCAAGGGCAACAAAGAGATGAAGCTGTCCGATGCTTCT	1288
Oy	844	ACTTGGGAGAGATGTGCTGTCTCAACCCGGGAGCGCGCAACGCGAGAGCTGTGGGCTGACA	903
Db	1289	ATTTTCGGGAGATGTGCTGTCTCAACGAGGGAGCGGATGAACGAGGCTGTGAGACTACA	1348
Oy	904	CTTACTGCGCGCTTATTCGTGTGAGCGTGAACAATTTCAACGAGTGTGTGAGGAGTACC	963
Db	1349	CTTACTGTGCGCTTATTCACTGATGTGAGCAATTTCAACGAGTGTGTGAGGAGAAATACC	1408
Oy	964	CCAATGATATCGGCGCGCTTTCGAGACGGATGGCCATCAACGCTGTGAGACCGCATCGGACAGA	1023
Db	1409	CCAATGATATCGGCGCGCTTTCGAGACTGTGTGATATTTGACCGGCTGATGATTCGACATGAGGACAGA	1468
Oy	1024	AGAAATTCATCTCTCTGCACAAAGATGTGAGCATGAATCTCAACTC	1066
Db	1469	AGAACTCACCTTGTGTGACAAAGGTTGACAGATGTATCTAGATCT	1511

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RESTUT 15
US-10-384-107-3
Sequence 3, Application US/10384107
Publication NO. US20050003477A1
GENERAL INFORMATION
APPLICANT: The Trustees of Columbia University
APPLICANT: Kandel, Eric R.
APPLICANT: Santoro, Bina
APPLICANT: Bartsch, Dusan
APPLICANT: Siegelbaum, Steven
APPLICANT: Tibbs, Gareth
APPLICANT: Grant, Seth
TITLE OF INVENTION: Pacemaker Channel Proteins and Uses Thereof
FILE REFERENCE: 05/5/54806-B
CURRENT APPLICATION NUMBER: US/10/384,107
CURRENT FILING DATE: 2003-03-06
PRIOR APPLICATION NUMBER: 08/997,685
PRIOR FILING DATE: 1997-12-23
NUMBER OF SEQ ID NOS: 60
SOFTWARE: PatentIn version 3.1
SEQ ID NO 3
LENGTH: 1584
TYPE: DNA
ORGANISM: mouse;
US-10-384-107-3

Query Match          64.9%;   Score 871;   DB 21;   Length 1584;
Best Local Similarity 88.7%;   Pred. No. 2e-221;
Matches 943; Conservative 0; Mismatches 150; Indels 0; Gaps 0;

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Search completed: August 31, 2005, 10:02:13
Job time : 4813 secs

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Qy 4 TGGCGTTCACCAAGATCTCAGCCCTCGCGGCTGCTGCGCCTCTCAGCCCTGATCCGCT 63
Db 449 TGGCGTTCACCAAGATCTCAGCTGCTGCGGCTGCTGCGCCTCTCAGCCCTGATCCGAT 508
Qy 64 ACATTCATCATGAGGAGGATCTTCCATGATGACCTTATGATGACCTGCGCGCGGATGATGA 123
Db 509 ATATCCACAGATGGAGAGATTTTCCATGATGACCTTATGATGACCTGCGCGCGGATGATG 568
Qy 124 GGATCTGCATCTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 183
Db 569 GCATCTGATACCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 628
Qy 184 TCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 243
Db 629 TCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 688
Qy 244 TGAACCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 303
Db 689 TGAACCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 748
Qy 304 TGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 363
Db 749 TGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 808
Qy 364 TCAACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 423
Db 809 TCAACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 868
Qy 424 TCCAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 483
Db 869 TCCAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 928
Qy 484 ACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 543
Db 929 ACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 988
Qy 544 ACCGTTACCAAGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 603
Db 989 ACCGTTACCAAGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1048
Qy 604 TGGGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 663
Db 1049 TGGGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1108
Qy 664 CCAAGCGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 723
Db 1109 CCAAGCGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1168
Qy 724 AGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 783
Db 1169 AGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1228
Qy 784 AGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 843
Db 1229 AGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1288
Qy 844 ACTTCGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 903
Db 1289 ACTTCGGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1348
Qy 904 CCTACTGCGGCTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 963
Db 1349 CCTACTGCGGCTCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1408
Qy 964 CCATGATGCGGCGGCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1023
Db 1409 CCATGATGCGGCGGCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1468
Qy 1024 AGAATTCATGCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1066
Db 1469 AGAATTCATGCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1511
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